CSBA

An Army at
the Crossroads

BY ANDREW F. KREPINEVICH

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The Center for Strategic and Budgetary Assessments (CSBA) is an independent, nonpartisan policy research institute established to promote innovative thinking and debate about national security strategy and investment options. CSBA's goal is to enable policymakers to make informed decisions on matters of strategy, security policy and resource allocation.

CSBA provides timely, impartial and insightful analyses to senior decision makers in the executive and legislative branches, as well as to the media and the broader national security community. CSBA encourages thoughtful participation in the development of national security strategy and policy, and in the allocation of scarce human and capital resources. CSBA's analysis and outreach focus on key questions related to existing and emerging threats to US national security. Meeting these challenges will require transforming the national security establishment, and we are devoted to helping achieve this end.

About the Author

Andrew F. Krepinevich, Jr., President, is an expert on US military strategy, policy and operations, military revolutions, and counterinsurgency. He gained extensive strategic planning experience on the personal staff of three secretaries of defense, in the Department of Defense's Office of Net Assessment, and as a member of the National Defense Panel, the Defense Science Board Task Force on Joint Experimentation, and the Joint Forces Command's Transformation Advisory Board. He is the author of numerous CSBA reports on such topics as the Quadrennial Defense Review, alliances, the war in Iraq, and transformation of the US military. He has provided expert testimony before congressional committees, as well as academic and other professional groups. His work has been published in *The New York Times*, *The Wall Street Journal*, and *The Washington Post*, and professional and public policy journals, including *Foreign Affairs* and *Issues in Science and Technology*. He received the 1987 Furniss Award for his book, *The Army and Vietnam*. He is the author of the forthcoming book, *7 Deadly Scenarios*. A graduate of West Point, he retired from the US Army in 1993. Dr. Krepinevich holds a Master of Public Affairs and Ph.D. from Harvard University.

AN ARMY AT THE CROSSROADS

STRATEGY FOR THE LONG HAUL

By Andrew F. Krepinevich

2008

This report is one in a series comprising CSBA's Strategy for the Long Haul intended to inform and shape the next administration's defense strategy review.

THE CHALLENGES TO US NATIONAL SECURITY. Translates the principal challenges to US security into a representative set of contingencies in order to determine what resources will be required, and how they should be apportioned among forces and capabilities.

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GROUND FORCES. Explores how the US Army and Marine Corps might best be organized, structured, modernized, and postured to meet existing and emerging challenges to US security.

SPECIAL OPERATIONS FORCES. Addresses the expansion and growing role of US Special Operations Forces.

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STRATEGIC FORCES. Examines the circumstances under which nuclear strategy and force posture decisions must be made today.

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ORGANIZING FOR NATIONAL SECURITY. Assesses how the United States Government can best organize itself to ensure effective strategic planning and execution of strategy.

A GRAND STRATEGY FOR THE UNITED STATES. Synthesizes the findings and insights of the study series.

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PREFACE

CHALLENGES TO US NATIONAL SECURITY

The United States faces three primary existing and emerging strategic challenges that are most likely to preoccupy senior decision-makers in the coming years:[1]

> Defeating both the Sunni Salifi-Takfiri and Shia Khomeinist brands of violent Islamist radicalism;

> Hedging against the rise of a hostile or more openly confrontational China and the potential challenge posed by authoritarian capitalist states; and

> Preparing for a world in which there are more nuclear-armed regional powers.

Addressing these specific challenges should be at the forefront of the incoming administration's strategic calculations, particularly during the 2009 Quadrennial Defense Review (QDR), which will help shape US defense strategy, planning, and force structure over the next twenty years.

Although none of these strategic challenges, individually, rivals the danger posed by the Soviet Union during the Cold War, they are certainly graver than the types of threats that prevailed immediately after the Cold War, during the period referred to by some as the "unipolar moment," when the power of the United States was at its peak and its dominance had not yet been put to the test. They are also quite different from the threats the United States confronted throughout the twentieth century (Imperial Germany, Nazi Germany, Imperial Japan, and the Soviet Union), all of which possessed militaries that, by and large, were very similar to the US military both in terms

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[1]   For an overview of these strategic challenges, see Andrew Krepinevich, Robert Martinage, and Robert Work, *The Challenges to US National Security*, the first monograph of the Center for Strategic and Budgetary Assessments' series that presents a "Strategy for the Long Haul."

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CSBA > **Strategy for the Long Haul**

of their structure and their modi operandi. For example, both the German and Soviet armies focused primarily on conducting combined arms mechanized land operations, as did the US Army. That is not the case with respect to today's threats and potential rivals, who instead focus their principal efforts on exploiting asymmetries to gain an advantage.

Radical Islamist movements, for example, use terror and subversion, engage in modern forms of irregular and insurgency warfare, and pursue weapons of mass destruction (WMD) to inflict catastrophic damage on the United States and its allies. China, who, of the three challenges, presents the military forces most similar to the US military, is emphasizing conventionally armed ballistic missiles, information warfare capabilities, anti-satellite weaponry, submarines, high-speed cruise missiles and other capabilities that could threaten the United States' access to the "global commons" of space, cyberspace, the air, the seas and the undersea, and possibly to US ally and partner nations in Japan, South Korea and Taiwan. Hostile and potentially unstable countries like North Korea and Iran have developed or may soon develop nuclear arsenals with which they could intimidate America's allies and challenge the US military's ability to protect vital national interests. Moreover, if these countries succeed in developing nuclear arsenals, they could spur others to follow suit.

THE KEY ROLE OF MILITARY POWER

Military power is central to the United States' ability to meet these strategic challenges successfully, whether in support of diplomatic and other elements of US security policy, or used in actual conflict. It follows, therefore, that the military means must be compatible and commensurate with the nation's security ends.

Given the long expected service life of most of its major assets, the US military force structure, which underlies the concepts of operation that drive the US "way of war," is still based primarily on the premises and experience of the Cold War and its immediate aftermath. Arguably, much of the current Program of Record (the forces the Department of Defense seeks to acquire in coming years) remains similarly reflective of that period. Yet the looming strategic challenges look to be significantly different. Thus there is a danger that many of the forces that the Defense Department plans to acquire may prove to be unsuitable for dealing with future threats.

This monograph, and several others in the series comprising the *Strategy for the Long Haul* project, examines the readiness of the four Services, the Special Operations Forces, and the strategic forces to do their parts in meeting the emerging security challenges. Each monograph:

> Describes the current state of a Service or force;

> Discusses what that Service or force must be able to do to help meet the emerging strategic challenges successfully; and

> Assesses problematic areas and issues in the Service's or force's Program of Record and recommends measures to address them.

While these monographs address particular Services or forces, it must be kept in mind that the US military fights as a *joint force*. Accordingly, each Service or force must ensure that the forces it acquires and the operational concepts it employs are interoperable with those of the others, and, equally important, that there is not a major mismatch between the support one Service assumes that it can expect from another, and what is actually the case. These concerns have historically been problematic for the US military, and thus merit particularly close attention.

EXECUTIVE SUMMARY

Throughout the twentieth century, the United States Army was oriented primarily on waging conventional warfare against a similarly armed great power, first the German Army during the World Wars and later the Soviet Army during the Cold War. Likewise, the pre-9/11 Army was designed to fight short, conventional wars against regional powers along the lines of what it experienced during Operation Desert Storm in 1991. Today, however, nearly a half million American soldiers are serving overseas in some eighty countries around the world. Over 2,200 soldiers have been killed in combat operations in Afghanistan and Iraq, and over 17,000 wounded. The garrison Army that fired nary a shot in Central Europe for half a century during the Cold War has, in the first decade of the new century, become a battle-hardened, expeditionary force conducting protracted ground campaigns on two main fronts. Yet for all the change the Army has experienced, more is on the way.

The United States currently faces three major strategic challenges that will dominate its defense policy over the next decade or longer: defeating Islamist terrorist groups, hedging against the rise of a hostile and more openly confrontational China, and preparing for a world in which there are more nuclear-armed regional powers. These existing or prospective adversaries present very different military challenges from those the Army prepared for during the previous century. Terrorist and insurgent groups employ a modern form of irregular warfare that has, over the past four decades, presented a formidable challenge to the world's best conventional armies in Vietnam, Afghanistan, Lebanon, and elsewhere. Unlike previous great power competitors, China's military modernization efforts appear to be centered on the aerospace and maritime domains. Meanwhile, second- and third-tier military powers such as Iran and North Korea have concentrated on developing and fielding weapons of mass destruction, Special Operations Forces, and, in the case of Iran, a substantial irregular warfare capability, rather than building up conventional ground forces. How should the Army prepare to confront these threats?

To date, the Army has made or is in the process of making a number of changes designed to help it address these challenges: reorganizing from a division-based Army to a modular, brigade-based force; rebalancing the force by placing an increased emphasis on military police, military intelligence, civil affairs and other capability areas while decreasing its emphasis on artillery, air defense, and armor units; increasing the size of its Special Operations Forces; updating its doctrine for counterinsurgency and stability operations; and modifying its training facilities to better prepare soldiers for the types of operations they have been tasked to conduct in Iraq and Afghanistan.

While these initiatives are certainly valuable, more must be done to prepare the Army for the types of threats it will likely face in the near future. Specifically, the Army finds itself in an era of persistent *irregular* warfare, in which the United States seeks, wherever possible, to pursue an indirect approach to dealing with its enemies by building up the forces of threatened states as a first line of defense, emphasizing preventive steady-state "Phase 0" operations whenever possible. Should this approach fail, the Army must also retain the ability to "surge" forces and to take the lead in carrying out large-scale stability operations when necessary. At the same time, the Army must remain capable of conducting traditional power-projection operations, to include regime change operations against minor nuclear-armed states such as North Korea and Iran (prospectively), and securing nuclear weapons no longer under the effective control of a failing or failed state. An Army that can successfully conduct these missions will likely possess the forces and skill sets relevant for accomplishing other missions along the conflict spectrum.

Given these very different mission sets and inherent resource limitations, the Army has decided to field a "full-spectrum force" rather than developing units oriented primarily on conducting either conventional war or irregular war operations. However, while this may be desirable in theory, several factors cast doubt on whether it can be achieved in practice. First, as the Army's own doctrine makes clear, the skill sets required of soldiers for conventional and irregular operations are very diverse and very demanding, ranging from executing complex combined arms maneuver warfare to operating effectively among alien cultures. Second, embedded in this approach is an assumption that the Army can shift with sufficient speed to reorient itself to address any threat along the conflict spectrum. Yet the Army's track record in reorienting conventional forces rapidly for irregular warfare is not encouraging. Third, the Army may not be able to rely upon its partners in the Interagency to provide the capabilities they are responsible for as part of the "whole of government" solution to the challenges posed by stability operations, thus increasing the number of unique tasks the Army must be capable of performing on its own in these situations. Fourth, and perhaps most important, the Army is attempting to create the full-spectrum force, with the unprecedented demands it places on soldiers, at the very time it is experiencing a serious and steady erosion in the quality of the force, in both the officer and non-commissioned officer corps, and in recruiting standards.

For a variety of reasons, including the difficulty of preparing for both irregular and conventional conflicts, the Army has continued to place its institutional center of gravity squarely in the area of conventional warfare. This is true both for the Army's core modernization program, the Future Combat Systems (FCS), and its overall force structure. While the FCS program is "optimized" for conventional operations, and while the Army, in the interim, plans to field an Active Component that arguably is overly weighted toward conventional operations, the Service has also decided against fielding brigades oriented on irregular warfare missions such as stability operations, counterinsurgency, and foreign internal defense. The Army does anticipate designating some of its Infantry Brigade Combat Teams (IBCTs) as Security Cooperation Brigade Combat Teams (SC BCTs) for Phase 0 stability operations, but these units will be tasked with this mission only on a temporary basis, and are thus likely to lose any proficiency they gain.

What, then, should the Army do differently? How can it best prepare for irregular conflicts while still maintaining a dominant capability for high-end conventional warfare? The answer lies in developing and fielding a force fully capable of conducting and, if need be, surging for irregular warfare operations, in addition to its capability to conduct and surge for large-scale conventional operations. Should either form of conflict prove protracted, the other wing of the force could, over the course of the initial 12-15 month surge, undergo training and the appropriate force structure modifications to enable it to "swing in" behind the surge force to sustain operations.

What would this dual surge force look like? First, fifteen Army IBCTs and fifteen Army National Guard IBCTs would be converted to SC BCTs. With a 3:1 rotation base, this would allow for seven and a half SC BCTs to be fielded on a sustained basis, serving as the Army's phase 0 forward presence forces. It would also provide a pool of thirty brigades to draw upon should major stability operations contingency require a surge of forces. Second, because the best strategy when addressing the threat of irregular warfare is to build partner capacity and engage in other preventive measures *before* a friendly country is at risk, the Army should also develop and maintain a significant training and advisory capability that can be deployed on short notice when necessary. Third, since the Army may need to fill any gaps in the US interagency effort to restore governance and enable economic reconstruction, it should strongly consider maintaining the ability to field Civil Operations, Reconstruction and Development Support (CORDS) groups capable of providing advice, mentoring, and support to the host nation's non-security institutions (including its civil administration and its legal, economic, and healthcare sectors). Finally, for high-end conventional operations, the Army's primarily capability should consist of twelve Heavy BCTs (perhaps eventually becoming FCS BCTs), an armored cavalry regiment, and nine National Guard Heavy BCTs. This would give the Army a surge force of up to twenty-oneHeavy BCTs, in addition to the six Stryker BCTs in the Active Component, one Stryker BCT in the Reserve Component, and four brigades of the 101st Airborne Division (Air Assault)—a total of thirty-two heavy or "middle-weight" brigades, far in excess of what is likely to

be required for a conventional major combat operation. Because of the relatively high density of officers and NCOs involved in training, advising and support of Interagency operations, the erosion in the officer and NCO corps, and Army budget limitations, the Army should forego its plans to increase its end strength by 65,000 soldiers.

The Army's centerpiece modernization program, the Future Combat System, is really a cluster of fourteen systems of various types. These systems will rely heavily on being linked to an overarching battle network that also ties them together with individual soldiers and the US military's joint battle network. While revolutionary in its concept, given the many technical challenges confronting it, the FCS program may not be executable at an acceptable cost. Furthermore, it may not be technically possible to create the battle network, as currently envisioned by the Army, or to create it within the time frame projected. Finally, as the FCS is optimized for conventional warfare, it is not clear it represents the best use of resources in this era of protracted irregular warfare confronting the Army. If this proves to be the case, the Army needs to have a plan to harvest as many FCS capabilities as possible. Thus far the Army is moving FCS components into the current force as they become available. However, to date these capabilities are relatively modest compared to the program's stated goals and the level of resources being invested. A thorough program review by the incoming administration is warranted before the Army commits to seeing the program through in its current form. At the same time, the Army should strongly consider establishing war reserve stocks of equipment to support irregular warfare operations, both to enable the rapid buildup of indigenous forces as necessary, and to replace the equipment of Army BCTs damaged or destroyed in the course of conducting irregular warfare operations.

Ultimately, the end result of the recommendations presented in this report would be a more balanced force—one that is not only balanced between the demands of irregular and conventional operations, but also one that is more evenly weighted between the Active and Reserve Components.
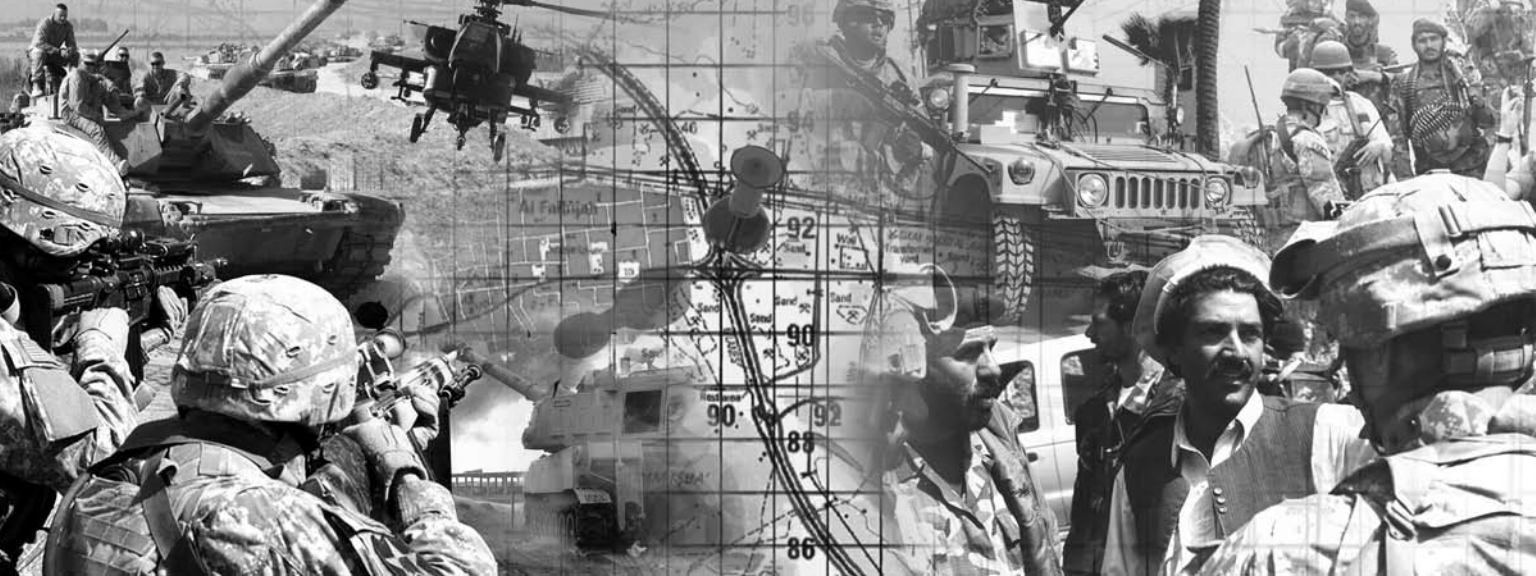
INTRODUCTION

> The soldier...is required to practice the greatest act of religious train-
> ing—sacrifice....However horrible the incidents of war may be, the sol-
> dier who is called upon to offer and to give his life for his country is the
> noblest development of mankind.[2]
> — General of the Army Douglas MacArthur, May 1962

Nearly a half million American soldiers are serving overseas in some eighty coun-
tries around the world.[3] Over 2,200 soldiers have been killed in combat operations
in Afghanistan and Iraq, and over 17,000 wounded.[4] The garrison Army that fired
nary a shot in Central Europe for half a century during the Cold War has, in the first
decade of the new century, become a battle-hardened, expeditionary force conducting
protracted ground campaigns on two main fronts. Yet for all the change the Army has
experienced, more is on the way.

The United States is currently in a situation comparable to the one it confronted in
the early days of the Cold War, when US civilian and military leaders were faced with
a new and daunting challenge in the form of the Soviet Union. To address this chal-
lenge, a long-term national strategy to preserve American security was developed.
In the aftermath of the Soviet Union's collapse, the United States entered a period of
relative calm—a "unipolar moment" in which its power was unrivaled and emerging
threats to its security had not yet come into focus. Unfortunately, just as the Cold War

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[2] Cited from the speech delivered by General MacArthur upon receiving the Sylvanus Thayer Award
at West Point, New York, May 12, 1962. Accessed at http://www.americanrhetoric.com/speeches/
douglasmacarthurthayeraward.html. Accessed on August 14, 2008.

[3] Department of the Army, *2007 Army Modernization Program* (Washington, DC: Department of the
Army, March 5, 2007), p. 2.

[4] Department of the Army, Defense Manpower Data Center, Data, Analysis and Program Division "Global
War on Terrorism—Casualties by Military Service Component—Active, Guard and Reserve, October
7, 2001 through August 9, 2008." Accessed at http://siadapp.dmdc.osd.mil/personnel/CASUALTY/
castop.htm. Accessed on August 14, 2008.

succeeded the brief peace following World War II, America's "unipolar moment" has been succeeded by a more dangerous era, as the United States now confronts three formidable challenges that may grow even more threatening in the years to come.

This report provides an assessment of how the United States Army (hereafter "the Army") might best organize itself to address the three strategic challenges described above — the Long War with Islamist terrorist groups, a more proliferated world, and a rising China — which are most likely to dominate senior US national security decision-makers' attention over the next decade or two.

Because in many ways these challenges are different from those of the Cold War, and even the immediate post-Cold War period, the Army finds itself at a crossroad. While it is generally accepted that the United States requires an army, the question, "What *kind* of army?" is ever present. During the twentieth century the answer to this question came easily. Over the first half of that century, the Army oriented itself primarily — some would say almost exclusively — on waging conventional warfare against its most formidable potential adversary: the German Army in the two world wars. During the second half of the century, the Army retained its conventional warfare focus as it directed the vast majority of its energies toward confronting the Soviet armies that threatened to overrun Western Europe. Given the magnitude of the threat posed to US security by these enemies, it is difficult to fault the Army for adopting this orientation. By comparison, the dangers posed by "brushfire" wars in places like the Philippines, Latin America and Southeast Asia were of minor consequence.

Now, however, the answer to this most fundamental question is far from obvious. The German Army today has been part of a US-led alliance for over half a century. Moreover, it is a pale shadow of the force that twice came terrifyingly close to defeating the world's leading democracies. The Soviet Army ceased to exist with the Soviet Union's collapse in 1991 and, like its German counterpart, has diminished to the point where it has difficulty maintaining internal order within Russia, let alone projecting significant power abroad.

With the passing of the German and Russian threats, no new military has succeeded them to challenge the Army's dominance in traditional, or conventional, land warfare. In the run-up to the First Gulf War there were fears that the Iraqi Army, one of the world's largest and — based on its decade-long war with Iran — one of its most experienced, would exact a fearful toll on the US-led coalition. Yet in February 1991 the Iraqi Army collapsed in less than a week after the onset of Coalition ground operations. Twelve years later, during the Second Gulf War, Army and Marine ground forces encountered greater resistance from Iraqi irregular forces on their sprint to Baghdad than from Saddam Hussein's regulars. Taking note of the Army's unsurpassed proficiency in waging combined-arms, mechanized air-land warfare, existing and would-be rivals of the United States have, for the time being, essentially abandoned this form of military competition.

Today, while the United States does not lack enemies — both existing and prospective — none are taking the well-worn path of the Germans, Soviets and Iraqis. In the

Middle East and Central Asia they are waging a form of modern irregular warfare that has, over the past four decades, often presented a formidable challenge to the world's best conventional armies—to include the American Army in Vietnam and, more recently, Iraq and Afghanistan; the Soviet Army in Afghanistan; and the Israeli Army in Lebanon. The challenges posed by modern irregular warfare are increasingly formidable, and include the use of modern communications and other information technologies, as well as extended-range rockets, missiles and unmanned aerial vehicles (UAVs), and advanced armor-penetrating weaponry. The prospect that irregular forces will acquire rockets, artillery, mortars and missiles ("RAMM") with advanced guidance capabilities ("G-RAMM") seems increasingly plausible, even likely, over the Defense Department's ten- to twenty-year planning horizon. As this occurs, it will become progressively more difficult to defend key fixed targets. This will likely be the case in at least some protracted irregular wars. To avoid becoming engaged in such conflicts, the United States is well-advised to pursue preventive measures, in what are referred to as "Phase 0" operations.[5]

Meanwhile, second- and third-tier military powers, such as Iran and North Korea, focus comparatively minor attention on their conventional ground force capabilities in favor of fielding weapons of mass destruction, their own Special Forces and, in Iran's case, a substantial irregular warfare capability. Moreover, should Iran acquire nuclear weapons, it would likely only embolden its use of proxy forces (e.g., Hezbollah, Hamas, the Mahdi Army) to wage irregular warfare against US allies and interests throughout the Middle East. The combination of G-RAMM and nuclear weapons, linked with submarines, advanced anti-ship mines and other proliferating military capabilities could enable even third-tier powers like Iran and North Korea to present a formidable anti-access/area-denial (A2/AD) threat.[6]

Perhaps the most challenging role for the Army, and the US military, would arise in the event a rogue state employed nuclear weapons. This might necessitate power-projection regime-change operations against a minor, nuclear-armed power, a challenge far more formidable than that confronted in either of the two Gulf Wars. As in the case of regime change operations in Afghanistan and Iraq, following such a campaign, the Army would likely be confronted with a prolonged period of occupation,

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[5] Phase 0 operations are associated primarily with security assistance, humanitarian relief, and disaster response operations. See Oliver Fritz and Gregory A. Hermsmeyer, "The US Air Force and Stability Operations Transformation," Joint Forces Quarterly, Fourth Quarter 2007, p. 129.

[6] "Anti-access/area-denial" (A2/AD) capabilities are those designed to delay the arrival of US forces, to keep them beyond their effective range, and to defeat them if they try to penetrate the denial zone. While many military forces and capabilities can contribute to the A2/AD mission, those most closely associated with it include: ballistic and cruise missiles that can strike forward air bases and massed troop concentrations; submarines; anti-ship cruise missiles (ASCMs); land-based anti-ship systems (e.g., strike aircraft, ASCMs, and ballistic missiles that target carrier strike groups); and counter-command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) capabilities, such as antisatellite weapons, cyberweapons, and electromagnetic pulse (EMP) generators designed to fracture US battle networks.

conducting security, stability, transition and reconstruction (SSTR) operations and possibly confronting enemy forces engaged in irregular warfare.

China, a rising great power that increasingly seeks to compete militarily with the United States, is focusing on an array of capabilities that bear little resemblance to a combined-arms, mechanized land-oriented military force. To be sure, the People's Liberation Army (PLA) is working to streamline, professionalize and modernize itself, to include developing and fielding new tanks and infantry fighting vehicles. It is also working to improve its marine infantry and amphibious assault capabilities.

However, to the extent the PLA is developing the capability to project power far from its shores, its principal missions have little to do with traditional land warfare.[7] Of greatest concern is Taiwan, a country that Beijing considers a wayward province. The ability to coerce Taiwan, or to invade and occupy it, is the most demanding power-projection mission for China's land forces. Given China's already impressive A2/AD capabilities, which are almost certain to become more imposing in the coming years, it is highly unlikely that a rapid, large-scale US ground reinforcement of Taiwan would be possible in the event of war. Positioning a major US ground combat force in Taiwan in peacetime seems equally implausible, as it would likely provoke a conflict rather than avert one.

Rather, the Chinese military is emphasizing aerospace and maritime capabilities that will enable it to challenge the United States for control of the global commons — air and space, cyberspace, the seas and the undersea — and to extend its military reach out to the second island chain in the Pacific. Despite General MacArthur's injunction against the United States becoming involved in a land war on the Asian continent,[8] some might posit the need to field ground forces able to deploy on the Chinese mainland. However, China's sheer size brings to mind the response German Chancellor Otto von Bismarck gave when asked what Germany would do if the British suddenly landed an expeditionary force on its North Sea coast: "Why, we would have to send out the police and have them arrested!"[9]

In short, despite the United States' enormous wealth, it is beyond even its means to contemplate a major conventional land campaign in China. It is not, however, far-fetched to believe that China, which seeks to develop strong ties to Third World coun-

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7   For a discussion of the security challenge posed by the People's Republic of China to US security interests, see CSBA's Long Haul Strategy monograph by Andrew Krepinevich, Robert Martinage and Robert Work, *The Challenges to US National Security* (Washington, DC: CSBA, 2008), pp. 23–42.

8   President Lyndon Johnson stated that, when he visited General Douglas MacArthur at Walter Reed Hospital for the last time, the two began discussing the Far East. Said MacArthur: "Son, don't ever get yourself bogged down in a land war in Asia." "A Look Down that Long Road," *Time*, February 19, 1965. Accessed at http://www.time.com/time/magazine/article/0,9171,940916-9,00.html. Accessed on August 14, 2008. The statement is also attributed to Field Marshal Bernard L. Montgomery (Viscount Alamein) in a speech in the House of Lords on May 30, 1962: "Rule 1, on page 1 of the book of war is: 'Do not march on Moscow'…. Rule 2 is: 'Do not go fighting with your land armies in China.'" Accessed at http://www.imdb.com/title/tt0093779/trivia. Accessed on August 14, 2008.

9   The anecdote, which has various forms, can be found at http://www.anecdotage.com/index.php?aid=14584. Accessed on August 14, 2008.

tries hostile to the United States, like Iran, Sudan and Venezuela, might pursue proxy irregular warfare against US interests, somewhat similar to what the Soviet Union did during the Cold War through its sponsorship of "wars of national liberation."

Given the discussion above it might be said that, no matter which of the three different challenges the Army confronts, each is likely, if not certain, to involve the prospect of irregular warfare of some kind. If the familiar (one might also say "comfortable") answer given by the Army for nearly a century—that America needs an army to defeat the conventional forces of the United States' principal rivals—is no longer relevant, what should animate the Army's efforts? This brings us back to the questions: "What kind of army does the United States have?" and "What kind of army does the United States need?" This report focuses on these two questions.

CHAPTER 1 > **WHAT KIND OF ARMY DO WE HAVE?**

> As you know, you have to go to war with the Army you have, not the Army you want.[10]
>
>> —Secretary of Defense Donald Rumsfeld, December 2004

"THE COLD WAR BATTLE THAT DIDN'T COME"

Secretary of Defense Rumsfeld incurred strong criticism for the statement cited above; however, it raises an important issue: Will the country be satisfied with the Army that emerges from the wars in Afghanistan and Iraq? Will that Army be well-prepared for the challenges ahead? Tomorrow's Army promises to look quite different from the Army that went to war in the period following the terrorist attacks on New York and Washington on September 11, 2001, as indeed it should.

Reflecting both the guidance of senior civilian and military leaders, as well as its institutional predilections, the pre-9/11 Army was oriented on waging short, conventional wars along the lines of what it had prepared for during the Cold War, and what it had experienced in the First Gulf War— "That Cold War battle that didn't come" in the words of then-Joint Chiefs of Staff chairman, General Colin Powell.[11]

As two eminent military strategists observed, that "Army was designed primarily to defeat a numerically superior mechanized threat backed by strong air and naval forces, on the territory of an ally, and from a forward-deployed posture in which essential ground support and sustainment infrastructure already was in place."[12] The First Gulf War presented the US Army with

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[10] CNN.Com, "Troops Put Thorny Questions to Rumsfeld," December 8, 2004. Accessed at http://www.cnn.com/2004/WORLD/meast/12/08/rumsfeld.troops/. Accessed on August 14, 2008.

[11] Andrew F. Krepinevich, *The Bottom-Up Review: An Assessment* (Washington, DC: Defense Budget Project, 1994), p. 22.

[12] Huba Wass de Czege and Richard Hart Sinnreich, *Conceptual Foundations of a Transformed US Army* (Washington, DC: Institute for Land Warfare, March 2002), p. 9.

While preparing for potential "major combat operations" may have deterred countries like Iran, Iraq, and North Korea from engaging in overt acts of aggression, it did not prevent low-level conflicts from starting in other parts of the world.

. . . circumstances uniquely favorable for the style of warfare in which it had trained for more than a decade, and against an enemy far less capable than those it was organized and equipped to confront. Required to deploy into an undeveloped theater, Army forces were able for nearly four months to assemble and prepare for combat unhampered by enemy interference. That same leisure, together with the open topography of the battle area and virtually continuous overhead surveillance, enabled the Army to conduct an intelligence preparation of the battlefield far more extensive than most attackers have ever enjoyed. Once committed to battle, it confronted and attrited operationally static enemy formations in largely open ground in conditions of unchallenged air supremacy and with overwhelming advantage in information, mobility, firepower and protection.[13]

This orientation was reinforced by the two-war posture that informed military requirements for much of the 1990s. Whether going by the name of "major regional conflicts" (MRCs) or "major theater wars" (MTWs), this force planning construct encouraged the armed forces to prepare for wars very similar to the First Gulf War.[14]

The planning construct proved at odds with the more complex security environment that was emerging in the immediate post-Cold War era. While preparing for potential "major combat operations" (or MCOs, the latest iteration of the MRC/MTW term) may have deterred countries like Iran, Iraq, and North Korea from engaging in overt acts of aggression, it did not prevent low-level conflicts from starting in other parts of the world. The 1990s saw the Army conducting major contingency operations in the Balkans, Haiti, Panama, Rwanda and Somalia. The Pentagon scrambled to catch up with the demands posed by these operations and by mid-decade the term "small-scale contingencies" (SSCs) entered the planning lexicon. However, the introduction of SSCs had no significant influence on US military force structure or modernization efforts.

ARMY TRANSFORMATION: TAKE 1

For the Army, all this changed with the 1999 Balkan War (Operation Allied Force).[15]

During the war, NATO military operations against Slobodan Milosevic's Serbian-dominated Yugoslav government were almost exclusively centered on aerial bombardment. Not long after the campaign's onset, on March 24, General Wesley Clark, the NATO commander, directed that Army Apache attack helicopters be deployed to

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[13] Ibid., p. 3.

[14] The baseline for US force requirements can be found in Christopher Bowie, et al, *The New Calculus* (Santa Monica, CA: Rand, 1993). The report's logic and recommendations were adopted, with minor revisions, by Secretary of Defense Les Aspin in the Defense Department's Bottom-Up Review. See Andrew F. Krepinevich, *The Bottom-Up Review: An Assessment* (Washington, DC: Defense Budget Project, 1994).

[15] The war centered on NATO efforts to stop the government of Yugoslavia from engaging in forms of ethnic cleansing against the Kosovar population in Kosovo. The objective was to have Serbian military forces depart, to be replaced by an international peacekeeping force that would enable Kosovar refugees to return to their homes.

Albania to support US Air Force operations whose purpose was to destroy or disperse the Serbian units stationed in Kosovo. The Apaches would be supported by Army multiple launch rocket systems (MLRS) and other force elements. Dubbed Task Force Hawk, the unit experienced difficulty deploying quickly into Albania. In the eyes of some senior Defense Department civilian leaders, the Army was in danger of becoming "strategically irrelevant." Seeing how challenged the Army was to deploy forces quickly to the Persian Gulf following Iraq's invasion of Kuwait in August 1990, as well as to Albania in 1999, the new Army chief of staff, General Eric Shinseki, declared

> Our heavy forces are too heavy and our light forces lack staying power. Heavy forces must be more strategically deployable and more agile with a smaller logistical footprint, and light forces must be more lethal, survivable, and tactically mobile. Achieving this paradigm will require innovative thinking about structure, modernization efforts, and spending.[16]

Shinseki moved quickly to restructure the Army into a more expeditionary force.[17] By the time of the attacks of 9/11 and the onset of operations in Afghanistan, the Army was engaged in a transformation effort of its own, from its Cold War era garrison force to an expeditionary force. The central focus of this effort was to enable the Army to deploy more rapidly against adversaries with anti-access/area-denial (A2/AD) capabilities. The Army's transformation vision saw future conflicts as ones in which:

> Operations will shift from linear to nonlinear[18];

> Forces will operate much more dispersed;

By the time of the attacks of 9/11 and the onset of operations in Afghanistan, the Army was engaged in a transformation effort of its own, from its Cold War era garrison force to an expeditionary force.

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[16] Benjamen S. Lambeth, "Task Force Hawk," *AIR FORCE*, February 2002, p. 83.

[17] General James Dubik, who played a key role in standing up the Army's Stryker Brigades and also served as head of Joint Forces Command's J9 staff element charged with identifying future challenges and opportunities for the military, stated that

> Task Force Hawk was one of the influences . . . [along with other] operations that we conducted since the end of the Cold War — Panama, Somalia, Haiti, Bosnia, Kosovo — each one has some very similar characteristics. One, they're underdeveloped infrastructures. Two, there was a variety of threats. Three, those threats are both conventional combat and asymmetrical. And four, they're very hard to get to due to the long logistics line.

> So what we want to do, as an Army, is look at those as examples of future conflicts. . . . And what the next war needs is a force that can go into anywhere very quickly, doesn't need a big logistics tail, doesn't need a main airport. They can plunk themselves down and be combat ready upon arrival.

Interview, Major General James Dubik, "The Future of War," Frontline. Accessed at http://www.pbs.org/wgbh/pages/frontline/shows/future/. Accessed on August 14, 2008.

[18] Nonlinear operations, as the term suggests, are operations in which there are no well-defined front lines or rear areas. Examples of linear warfare would include the Western Front in World War I, and the Russo-German Front in World War II. Examples of nonlinear operations include most insurgencies (e.g., the Vietnam War; the Philippine Insurrection) as well as the American Civil War and certain points during the Korean War (e.g., following the US assault at Inchon in September 1950).

> Operations will be conducted at a much higher tempo, leading to greater reliance on speed in mobilizing, deploying, and conducting combat operations;

> Advanced information technologies will allow ground forces to form networks, enabling them to violate the principle of mass to better protect themselves by dispersion, while losing little of their ability to coordinate or mass combat capability;

> Although close combat will remain a key element in land warfare, advanced information capabilities and munitions will enable ground forces to conduct decisive engagements at far greater ranges than has historically been the case;

> Adversaries who cannot compete effectively in open battle will gravitate toward combat in complex terrain (urban areas in particular);

> Operations will be much more dependent on maritime and air forces for their success than has been the case—in short, land warfare will become even more of a joint endeavor than it is today; and

> The spectrum of land warfare will become blurred, with various forms of warfare merging, requiring unprecedented levels of flexibility from land forces.[19]

The Army's vision looked to exploit opportunities made possible by rapidly advancing technologies, with particular emphasis on information-related technologies.

The Army's vision looked to exploit opportunities made possible by rapidly advancing technologies, with particular emphasis on information-related technologies. The Army's vision of the transformed force—that it would "See first, understand first, act first and finish decisively"—is truly transformational in that it would eclipse the combined arms, mechanized, heavy forces that dominated land warfare since the advent of blitzkrieg, in favor of far more dispersed, yet highly networked, forces that fight the decisive battle not at close range but at extended distances. The Army leadership also saw, quite perceptively as it turned out, that this kind of dominance in open warfare would lead its enemies to seek alternative ways of fighting, such as urban terrain combat.

The Army's vision, while revolutionary, was focused primarily on what might be termed conventional, or "open" battles—engagements between regular, or conventional, forces in relatively unrestricted terrain, with particular emphasis on the ability

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19   These observations are drawn from US Army Training and Doctrine Command (TRADOC), TRADOC Pamphlet 525-3-90/O&O, *The United States Army Objective Force—Operational and Organizational Plan for Maneuver Unit of Action* (Fort Monroe, VA: TRADOC, July 22, 2002); US Army Training and Doctrine Command, TRADOC Pamphlet 525-3-0, *The United States Army Objective Force Operational and Organizational Concept* (Draft) (Fort Monroe, VA: TRADOC, December 18, 2001); James M. Dubik, *The Army's "Twofer": The Dual Role of the Interim Force* (Washington, DC: Institute of Land Warfare, October 2001); Huba Wass de Czege and Richard Hart Sinnreich, *Conceptual Foundations of a Transformed US Army* (Washington, DC: Institute for Land Warfare, March 2002; and United States Army White Paper, *Concepts for the Objective Force* (Washington, DC.: US Army, November 2001).

to deploy expeditionary forces very rapidly, in an A2/AD threat environment.[20] This is a desirable capability, especially in regime change operations against a minor nuclear-armed power. By demonstrating that it is not only dominant in open battle against conventional forces in this era, but that it intends to maintain this dominance in the post-transformation era, the Army may dissuade enemies from creating ground forces to challenge the US military directly. By seeking to field a dominant ground force that can deploy and operate in an A2/AD environment, the Army appears to be trying to ensure that the current US dominance in power-projection operations is sustained, even against a minor power armed with weapons of mass destruction (WMD). Indeed, the Army, because of its potential ability to disperse its combat capability more widely than any of its sister Services, is potentially the force most capable of operating underneath an enemy's A2/AD threat umbrella — but only if a substantial ground force can be deployed and sustained in such an environment at an acceptable cost.

There were risks associated with the Army's vision, as with any large-scale organizational change. In particular, the Army did not sufficiently take into account the need to prepare for other significant missions that were emerging as a consequence of the US military's overwhelming dominance in traditional, or conventional, warfare. This dominance has led adversaries to pursue asymmetrical approaches to warfare, including nontraditional threats to the homeland and modern forms of irregular warfare, which are often protracted. Army transformation would, therefore, need to encompass more than conventional (or "open") battle.

ARMY TRANSFORMATION: TAKE 2

These gaps in the Army vision were made manifest in the wars that followed the 9/11 attacks on the United States. Using a sports analogy, the Army was prepared to run a conventional war *sprint* while its enemies in Afghanistan and Iraq were planning to run an irregular warfare *marathon*. In addition to transforming from a forward-based garrison Army to an expeditionary Army, the Service now confronted the challenge of adapting to this new reality.

As we have seen, the Army that went to war in Afghanistan and Iraq was designed almost exclusively with an eye toward waging conventional warfare. This orientation was not novel. Indeed, it was consistent with the Army's focus during most of the twentieth century on being prepared for conventional warfare in Europe. The Army had enjoyed great success in this form of warfare and, from an institutional perspective, was very comfortable with it. This institutional preference was further reinforced by the United States' traumatic experience in the Vietnam War, in which the Army played the central role and suffered more than its sister Services, in both

> The Army, because of its potential ability to disperse its combat capability more widely than any of its sister Services, is potentially the force most capable of operating underneath an enemy's A2/AD threat umbrella.

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[20] While this has been the Army's vision, it has never come to grips with how to solve deploying and sustaining a sizeable land force in an A2/AD environment. See Andrew Krepinevich, *Transforming the Legions* (Washington, DC: CSBA, 2004), pp. 35–45, 67–82.

a human and institutional sense. Thus in addition to a cultural preference for conventional war, the Army became positively neuralgic over the thought of waging a protracted war against irregular forces.[21]

In its desire to avoid such conflicts, the Army found willing partners in the form of the American people and their political leaders. "No More Vietnams" became a slogan, not just for Americans, but for the US military—and especially the Army. Thus the 1980s saw the introduction of the Weinberger Doctrine, and its stepchild, the Powell Doctrine, which sought to avoid future "Vietnams" by carefully choosing America's battlefields, applying overwhelming force when troops were committed, and looking for an early way out of the conflict. When it looked like US forces might be tied down in an irregular conflict, or incur substantial casualties, as occurred, for example, in Lebanon in the fall of 1983, US forces were withdrawn before the mission could be accomplished.

This theme continued in the 1990s, under the rubric of "Exit Strategies." Before deploying US forces to places like Bosnia, Haiti and Rwanda, their withdrawal date was debated as much as how the military planned to accomplish the mission. When US forces dipped their toe in the waters of stability operations, as in Somalia, they were withdrawn quickly when casualties ensued. In 2000, then-candidate for president George W. Bush criticized the Clinton Administration's use of US forces in peacekeeping and peace enforcement operations, suggesting that under his leadership such operations would decline. Not surprisingly, in Army circles, phrases like "We don't do windows, jungles, cities or guerrillas" were heard, reflecting not only the Service's institutional preference, but clearly those of the American people as well.

This all changed with the attacks of 9/11. Following the successful major combat operations in Afghanistan and Iraq, the United States realized that it could not depart at a time of its own choosing, lest it run the risk that the unstable conditions in these states might produce regimes every bit as hostile to the United States as those that were displaced.

In both Afghanistan and Iraq, the Army was the Service principally confronted with the mission of providing stability until a new government could be elected and indigenous security forces could be trained. This would have been demanding under conditions of relative tranquility. It has proven to be far more difficult in both countries, as insurgent forces work to foment instability and frustrate the democratic process and reconstruction. For the first time since the Vietnam War the Army was faced with the challenge of maintaining a large deployed force in the field for a protracted period of time: the world-class sprinter had to become a world-class marathoner, and accomplish this while the race was being run.

The challenge for the Army is manifold: it needs to reorient itself to sustain a protracted rotation of units into two war zones, leaving sufficient time for units to rest

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[21] For an assessment on the Army's Vietnam War experience, see Andrew F. Krepinevich, Jr., *The Army and Vietnam* (Baltimore, MD: Johns Hopkins University Press, 1986).

and refit between deployments; it has to develop doctrine to cope with modern insurgency warfare; it has to organize, train and equip its forces to execute the new doctrine; it has to modernize the force, which is operating primarily with Cold War era equipment; finally, the Army needs to attract and retain sufficient numbers of soldiers, and of sufficient quality, to sustain the force.

The results of the Army's efforts to overcome these challenges over the past five years, while remarkable in many respects, have been mixed.

The Modular Force

As it became increasingly evident that the Army would need to deploy large numbers of soldiers over a protracted period of time to Afghanistan and, especially, Iraq, the Service found itself transforming in the wake of events, rather than in anticipation of them. The Army has responded by restructuring from a division- to a brigade-based force, the so-called modular force, and by establishing a brigade rotational base through its Army Force Generation (ARFORGEN) process (hereafter referred to simply as "force generation").

Whereas in previous conflicts one spoke of forward-deployed Army divisions, the focus in Afghanistan and Iraq is on deployed brigades. A principal goal of this effort is to enable brigades to deploy independently of their division, in order to enhance flexibility.[22] To this end, modular force brigades have major combat support and service capabilities organic to their structure.

The case for moving to a brigade-centered Army began over a decade ago; one of its earliest advocates was Army colonel Douglas MacGregor. In 1997 MacGregor advocated "reorganizing the Army into mobile combat groups [4,000–5,000 soldiers]," arguing that formations "smaller than the contemporary Army division will have to operate independently for long periods of time."[23]

The Army's modularity initiative envisions increasing the number of brigade combat teams (BCTs) from thirty-three to forty-eight, and creating twenty-eight National Guard BCTs, for a grand total of seventy-six BCTs.[24] These brigade combat teams

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[22] Army Field Manual (FM) 1, *The Army* (Washington, DC: Department of the Army (DA), June 2005), p. 4–7.

[23] Douglas A. Macgregor, *Breaking the Phalanx: A New Design for Landpower in the 21st Century* (Westport, CT: Praeger Publishers, 1997), pp. 4, 227. See also Colonel (Ret.) John A. Bonin, U.S. Army, and Lieutenant Colonel Telford E. Crisco, Jr., "The Modular Army," *Military Review,* March–April 2004.

[24] Army Field Manual (FM) 1, *The Army* (Washington, DC: Department of the Army (DA), June 2005), p. 4–7; and Thomas M. Jordan, "The Modular Force," Briefing, January 31, 2008. During the course of transitioning from a division-based to a brigade-based Army, part of the restructuring process finds the number of brigades per division increasing from three to four, while the number of maneuver battalions per brigade decreases from three to two. Thus each division actually suffers a net reduction in combat maneuver battalions, from nine to eight. Finally, prior to the authorized 65,000 increase in Army end strength the Service had planned to field forty-two active BCTs. The increase has enabled the Army to plan for a force of forty-eight.

supplant the division[25] as the Army's largest fixed maneuver force. The BCTs comprise three basic types: heavy (HBCTs), infantry (IBCTs), and Stryker[26] (SBCTs).

Through its Modular Force initiative, the Army anticipates achieving a 30 percent or greater increase in the combat power of the Active Component of the force.[27] There are concerns, however, over the Modular Force's ability to achieve this. These concerns are especially acute with regard to irregular warfare. The Army plans to incorporate only two maneuver battalions into its Heavy Brigade Combat Teams (HBCTs) and Infantry Brigade Combat Teams (IBCTs), a reduction from the three maneuver battalions in the old brigade system. Thus the pre-Modular Force, known as the Total Army (Active, National Guard, and Reserve), had 233 combat battalions with 699 maneuver companies at the end of fiscal year (FY) 2004. By the end of 2011, Army plans call for 161 maneuver battalions with 541 maneuver companies—roughly a 30 percent drop in the number of battalions and a 22 percent reduction in the number of companies.[28] The loss of ground maneuver capability—"boots on the ground"—seems at odds with the Service's ongoing irregular warfare operations, which are often manpower-intensive.

In its defense, the Army points out that the benefits of "combat multipliers," such as the modular force BCT's Armored Reconnaissance Squadron and its Reconnaissance, Surveillance, and Target Acquisition (RSTA) Squadrons, offset the loss of the maneuver company. Moreover, the Service believes that soldiers in company weapons sections, such as snipers, dismounted scouts, sappers (specially trained combat engineers), military police, and assault weapons squads all but eliminate the gap in the number of "boots on the ground."[29] The validity of the Army's structure is being tested as modular force brigades deploy into the combat zones of Afghanistan and Iraq.

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[25] The modular force division's primary task is to command and control assigned brigade-size formations in the conduct of full-spectrum operations. Brigade combat teams and all five types of multifunctional support brigades are normally required for the division to conduct major combat operations. See Lieutenant Colonel Telford E. Crisco, Jr., "The Modular Force: Division Operations," *Military Review*, January–February 2006, pp. 95, 99.

[26] The Stryker is the Army's name for the family of wheeled armored vehicles which will constitute most of the brigade's combat and combat support vehicles. The Stryker Brigade Combat Team (SBCT) concept originated in the 1990s under Army Chief of Staff General Eric Shinseki as a rapidly deployable, medium-weight combat force that could operate throughout the full spectrum of conflict.

[27] Department of the Army, *Army Strategic Planning Guidance 2005* (Washington, DC: Department of the Army, January. 15, 2005), p. 9.

[28] The non-modular, division-based brigades (e.g., the 82nd Airborne Division; 101st Airborne Division (Air Assault) and the Stryker Brigade Combat Teams (SBCTs) will retain three maneuver battalions. Institute for Defense Analyses (IDA) Working Paper, "Army QDR Issue: Can the Overall Combat Output Potential of the Army Be Increased by Applying Existing Army Organizational Principles in a Different Way?" September 2005, p. 6. Cited in Andrew Feickert, CRS, *U.S. Army's Modular Redesign: Issues for Congress*, May 5, 2006, p. 3. The Army's decision to use part of the authorized 65,000 troop increase to field an additional six BCTs will also serve to close the gap in maneuver company levels.

[29] US Army Training and Doctrine Command (TRADOC) Analysis Center, "Task Force Modularity: The Role of Analysis in the Creation of the Modular Force," Ft. Leavenworth, KS, July 1, 2005, p. 31. See Andrew Feickert, CRS, *U.S. Army's Modular Redesign: Issues for Congress*, May 5, 2006, p. 4.

In addition to the BCTs, the modular force includes five types of multifunctional support brigades. They are the aviation, battlefield surveillance, maneuver enhancement, fires, and sustainment brigades. Plans are for the Army to field ninety-seven such brigades.[30] The Army also plans to field 130 functional support brigades, for a total of 227 support brigades of all types.[31] Each support brigade accomplishes a broad function, such as RSTA or intelligence operations.[32]

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[30] Army Field Manual (FM) 1, *The Army* (Washington, DC: Department of the Army (DA), June 2005), p. 4–7; and Thomas M. Jordan, "The Modular Force," Briefing, January 31, 2008. The Army plans to have thirty-nine of these brigades in the Active Component, forty-six in the National Guard, and twelve in the Reserves.

[31] Thomas M. Jordan, "The Modular Force," Briefing, January 31, 2008. Among the functional support brigades are those structured for air defense, chemical, engineer, military intelligence, military police, civil affairs, and signal operations and support.

[32] "The Army Modular Force," Briefing, n.d., Slide 19.

FIGURE 1. **MODULAR ORGANIZATIONAL DESIGNS FOR BRIGADE COMBAT TEAMS**
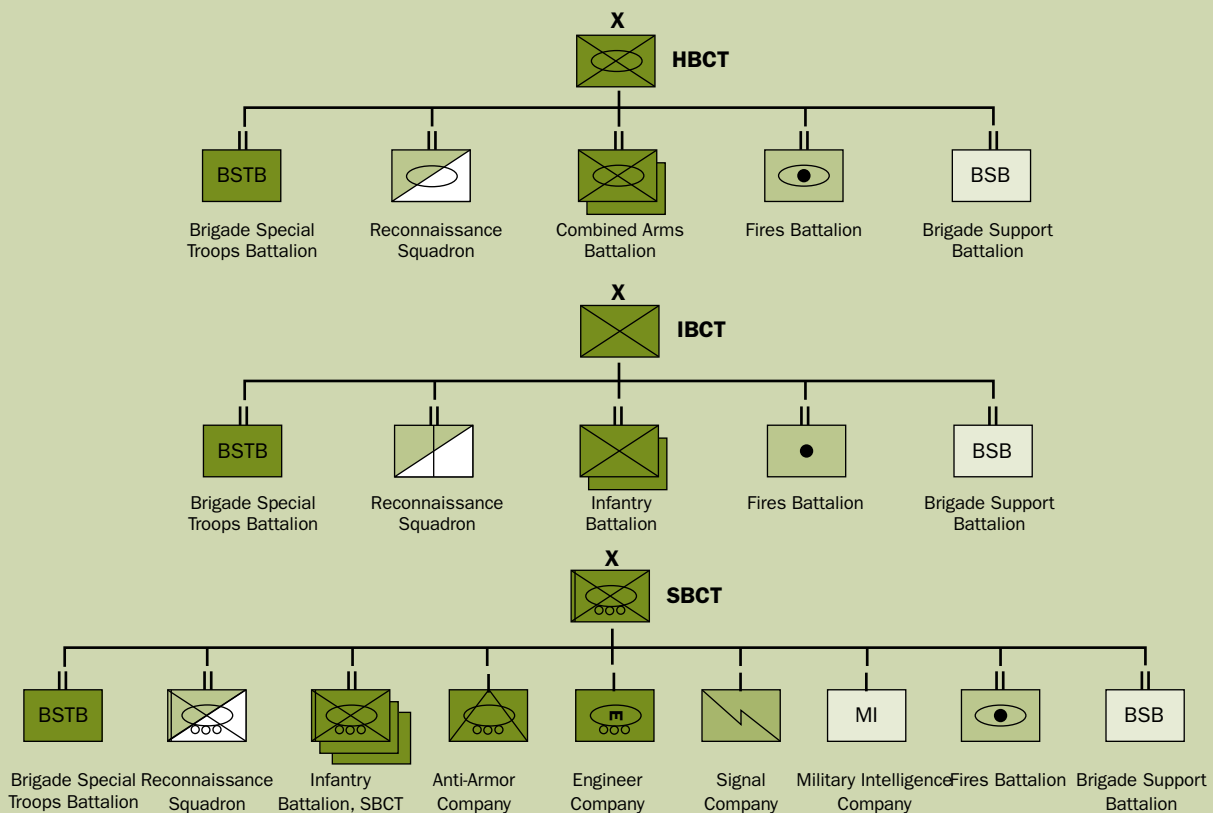
Source: Army Transformation: Report to the Congress of the United States (Washington, DC: Department of the Army, February 2007), p. 15.

Rebalancing

In recognition of the altered strategic environment, the Army is also engaged in "re-balancing" both its Active and Reserve components. This involves altering the mix of capabilities within the Army to better reflect the kinds of demands it anticipates having to satisfy. Over 140,000 positions will be rebalanced as part of this initiative, which began in FY 2003 and is projected to extend to FY 2013. Figure 2 provides an overview of those capability areas that are slated for reduced emphasis, and those programmed for an increase.

The Army's growing experience in irregular warfare is clearly reflected in its re-balancing efforts. Emphasis on heavy forces, in the form of armor and artillery, is reduced by one sixth or more. At the same time, force types most associated with the kinds of wars being waged in Afghanistan and Iraq receive significant boosts, albeit many from very low initial levels.

The growing G-RAMM threat among irregular forces may argue for retaining a robust air defense capability. However, it is likely that the Army will have to move be-yond its current approach to missile defense, which centers on kinetic intercept of the threat, toward increased emphasis on directed energy intercepts. Directed energy air and missile defense research and development has made remarkable strides in recent years, especially in the area of solid-state laser technology. Of great importance, the cost per round of a laser shot is only a small fraction of the cost of a kinetic kill round, such as a Patriot-3 interceptor missile. As more cost-effective air and missile defense capabilities come on line, the Army will likely need to recalibrate the size and mix (between directed energy and kinetic energy intercepts) of its air defense capabilities.

FIGURE 2. **SELECTED SHIFTS IN ARMY ACTIVE AND RESERVE COMPONENT CAPABILITY AREAS**

Decrease	Percentage Decline	Increase	Percentage Growth
Air Defense	16%	Aviation	43%
Armor	18%	Civil Affairs	16%
Field Artillery	16%	Engineer	19%
		Infantry	14%
		Military Intelligence	40%
		Military Police	53%
		Psychological Operations	129%
		Special Operations Forces	25%

Source: "The Modular Force," Briefing, Mr. Thomas M. Jordan, Director, CAC-FMD, Fort Leavenworth, Kansas, January 31, 2008.

Special Forces

The large increase in irregular warfare operations following the terrorist attacks of September 11, 2001, have greatly taxed the nation's Special Operations Forces (SOF), most of whom are drawn from the Army.[33] The Army's Special Operations Command comprises the Ranger Regiment, "Green Beret" Special Forces Groups, the 160th Special Operations Aviation Regiment (Airborne), 4th Psychological Operations Group (Airborne), and 95th Civil Affairs Brigade (Airborne). All have been engaged in extensive operations over the last seven years in what the Bush Administration calls the "Global War on Terrorism." Consequently, the 2006 Quadrennial Defense Review (QDR) called for a one-third expansion in the number of active-duty Army Special Forces battalions.[34] The Army is building toward a force of twenty Special Operations Forces battalions, four active Civil Affairs battalions and six active Psychological Operations battalions.

The Rotation Base

The Army recognizes that "continual deployments in support of the Global War on Terrorism (GWOT) have caused the Army to become out of balance with the demand for forces exceeding the sustainable supply."[35] Correcting this imbalance is essential if the Army is to maintain unit readiness and effectiveness. The principal concerns associated with too-frequent deployments center on the wear-and-tear on soldiers and their equipment. Soldiers subjected to repeated deployments without having sufficient time for rest and recuperation risk a loss of effectiveness on future deployments. They may also be more prone to leave the Army when their enlistments are up. Finally, as the Army is comprised entirely of volunteers, the prospect of tightly spaced combat tours may discourage prospective recruits.

While there are concerns regarding what effect repeated, frequent deployments will have on equipment wear-and-tear, the principal worries center on the impact they will have on soldiers, which the Army sees as the foundation upon which unit effectiveness rests. Today's volunteer Army is superior in many ways to the draft-era force that existed during the Service's last large-scale protracted deployment during the Vietnam War. For the purposes of protracted periods of deployment, it is also different. For example, in extended conflicts such as the ones now confronting the Army in Afghanistan and Iraq, draftees might serve once in the combat theater before departing the military. Long-term volunteers, however, might serve a number of tours,

The principal concerns associated with too-frequent deployments center on the wear-and-tear on soldiers and their equipment.

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[33] For a detailed treatment of US Special Operations Forces, see CSBA's Long Haul Strategy study by Robert C. Martinage, *Special Operations Forces* (Washington, DC: CSBA, 2008).

[34] Donald Rumsfeld, *Quadrennial Defense Review Report* (Washington, DC: Department of Defense, February 6, 2006), p. 45.

[35] LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 7.

as is currently the case. It seems reasonable to assume that a soldier serving his or her second or third tour would be more effective than a soldier experiencing the conflict for the first time, although there is evidence that soldiers deployed too frequently and for protracted periods are at risk of suffering from "combat fatigue" and/or post-traumatic stress disorder.

As this occurs, the Army risks having many of its soldiers decide that a military career is too arduous or too risky an occupation for them (and their families) to pursue. This leads to the question: How often can a soldier be put in harm's way and still desire to remain in the Army?[36] The answer is different for every soldier, but a sustainable deployment ratio range seems to be somewhere in between 3:1 and 5:1. That is, for every brigade that is forward deployed in combat operations or in a "hardship" tour, there must exist between three and five brigades to sustain the rotation. Thus a 3:1 rotation base would find soldiers deployed on such missions one third of the time; a 5:1 rotation would see them deployed one fifth of their service time. For the purposes of this assessment, a 3:1 deployment ratio is assumed.[37] Thus a soldier under these circumstances could expect to be on deployment one out of every three years.

Not surprisingly, the deployment ratio for Army National Guard (ARNG) brigades in the Reserve Component (RC) of the Army is not as favorable. The simple reason is that National Guard soldiers are civilians who have joined the Reserves in the expectation that their civilian livelihood and lifestyle will not be subjected to numerous interruptions. Moreover, because National Guard units do not train anywhere near as frequently as units in the Army's Active Component, once they are called up to active service they require a period of intensive training, typically several months long, before they are ready for deployment. According to senior Army officials, a more reasonable deployment ratio for National Guard brigades, then, would be 6:1.[38] But owing to

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[36]   Other factors in addition to the rotation base come into play as well. For example, if soldiers perceive that they are being poorly led, or engaged in executing a failed strategy, their willingness to persevere may decline, perhaps dramatically. During the Vietnam War, once it became clear the United States was looking for a way out of the conflict rather than attempting to win it, there was a heightened degree of cynicism, and a corresponding decline in the willingness of soldiers to sacrifice in order to accomplish the mission. The phrase "Why die for a tie?" popular at the time, is emblematic of this attitude.

[37]   This assumption is based on the author's discussions with senior Army leaders. It is, however, less than the rotation base ratio espoused by the Marine Corps. John Hendren, "Rumsfeld Asks Army to Consider Shorter Rotations," *Los Angeles Times*, June 25, 2004, p. 10. A study by the Congressional Budget Office concluded that "rotation ratios of between 3.2:1 and 4:1 span the range expected to be feasible over the long term for active-component units." Douglas Holtz-Eakin, Congressional Budget Office, "The Ability of the U.S. Military to Sustain an Occupation in Iraq," Testimony, Committee on Armed Services, US House of Representatives, November 5, 2003, p. 11. Recent Army statements indicate the Service hopes to assume a 4:1 deployment ratio for Active brigades, with a 3:1 ratio under "surge" conditions. The corresponding deployment ratios for the Reserve Component brigades are 6:1 and 5:1, respectively. Army Transformation: Report to the Congress of the United States (Washington, DC: Department of the Army, February 2007), p. 37.

[38]   As with the Army's Active Component, this ratio is based on the author's discussions with senior Army leaders. This also conforms to the conclusion reached by the CBO. See Douglas Holtz-Eakin, "The Ability of the U.S. Military to Sustain an Occupation in Iraq," Congressional Budget Office, Testimony, Committee on Armed Services, House of Representatives, November 5, 2003, p. 11.

the need for pre-deployment training, the true ratio of *deployed* brigades to existing brigades is probably closer to 8:1.[39]

To help redress this imbalance, the Army, through its Modular Force initiative and the planned expansion in the number of BCTs stemming from its increased end strength, looks to increase the rotational pool of ready BCTs by at least 50 percent. In so doing, and by structuring the BCTs so that they are capable of deploying independently, the Army can generate a greater number of brigades, and a more predictable rotation. This will also provide units with more time between rotations, increasing their opportunities to obtain adequate rest, and to train and refit prior to another deployment.

Under the Army's force generation scheme, units progressively increase in readiness as they progress through three readiness pools:

> A Reset pool for units either redeploying from long operations or who did not deploy when available to do so;

> A Ready pool that includes units assessed as "ready" to conduct mission preparation and training; and

> An Available pool that includes units prepared to deploy.[40]

In reality, however, this pool does not yet exist. Save for those units that are either deployed or on the brink of deployment, few if any are ready to "prepare" or "train" as units in the traditional sense. Units are being provided with essential manpower and equipment right up to, during, and even after their major pre-deployment training exercises. This degrades the value of the training experience significantly.[41]

Employing this process, a modular BCT force comprising forty-eight Active Component BCTs and twenty-eight National Guard BCTs should, according to the deployment metrics outlined above, sustain a force of roughly twenty BCTs in the field indefinitely.[42] While this rotation base would be sufficient to meet current demands for BCTs in Afghanistan and Iraq, as well as other "hardship" tours (e.g., South Korea), it would be insufficient to meet the demands of a larger contingency, such

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[39] It is important to note that while there exist some data with respect to Active Component deployment patterns, the data regarding acceptable Reserve Component rotation rates is sketchy, making it more difficult to determine what RC rotation rates are sustainable.

[40] LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 15.

[41] I am indebted to Major General Eric Olson (USA, Ret) for this insight. His observation was confirmed by the Army's chief of staff, General George Casey, who notes that "Unfortunately, we're not going to be able to implement that until the end of 2011, when we finish our growth and have all the new units on board." See Gina Cavallero, "Gen George Casey, US Army Chief of Staff," *Defense News*, October 6, 2008, accessed at http://www.defensenews.com/story.php?i=3757325&c=FEA&s=INT, on October 7, 2008.

[42] The calculation is as follows: 48 AC BCTs deployed one-third of the time yields 16 brigades constantly deployed forward. Additionally, 28 National Guard BCTs deployed one-eighth of the time yields 3 ½ brigades deployed forward on a continuing basis. The total of the two is 19 ½ BCTs.

as one involving Iran, Nigeria or Pakistan. Given the limits on the size of the army the American people are willing to sustain, the Service simply cannot address the multitude of prospective contingencies across the entire spectrum of conflict, from various forms of irregular warfare to full-scale conventional war, to include nuclear conflict. This has led the Army to conclude that its Modular Force must also be a "full-spectrum" force, a subject that will be addressed presently.

In addressing this challenge the Army is, to a great extent, putting its "force structure eggs" in one "BCT basket." The increase in BCTs is coming at the expense of placing greater weight on Army units that can dramatically increase force structure indirectly, such as those capable of rapidly training, equipping and advising the militaries of indigenous host-nation (HN) forces, as well as those of allies and partners. This is important, since if the Army lacks the size to address key contingencies, it will have to rely on creating "partner capacity" to make up the difference. The ability to generate partner capacity, and to do so expeditiously, also recognizes that, in many irregular warfare contingencies, a partner state's indigenous forces must ultimately take responsibility for their country's security.

Doctrine

As befits a Service in the midst of large-scale change, the Army has revised its doctrine to address changes in the challenges it confronts, and those it anticipates it will confront. The Service's recently revised cornerstone doctrine document, Field Manual 3-0, *Operations*, attempts to reorient the Army toward "full-spectrum" operations involving a mix of offensive, defensive, stability, and civil support operations.[43] Importantly, the field manual introduces stability operations as a major requirement for the Army.

> This edition of FM 3-0, the first update since September 11, 2001, is a revolutionary departure from past doctrine. It describes an operational concept where commanders employ offensive, defensive, and stability or civil support operations simultaneously as part of an interdependent joint force to seize, retain, and exploit the initiative, accepting prudent risk to create opportunities to achieve decisive results. Just as the 1976 edition of FM 100-5 began to take the Army from the rice paddies of Vietnam to the battlefield of Western Europe, this edition will take us into the 21st century urban battlefields among the people without losing our capabilities to dominate the higher conventional end of the spectrum of conflict.[44]

Field Manual 3-0 confirms the Army's reorientation from the Cold War era forward-based garrison force to an expeditionary force.

Field Manual 3-0, *Operations*, attempts to reorient the Army toward "full-spectrum" operations involving a mix of offensive, defensive, stability, and civil support operations.

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[43]   Department of the Army, Field Manual 3-0, *Operations* (Washington, DC: Department of the Army, February 2008), pp. 3–3, 3–7.

[44]   Ibid., np.

Expeditionary capability is the ability to promptly deploy combined arms forces worldwide into any operational environment and operate effectively upon arrival. Expeditionary operations require the ability to deploy quickly with little notice, shape conditions in the operational area, and operate immediately on arrival. . . .

Expeditionary capabilities assure friends, allies, and foes that the Nation is able and willing to deploy the right combination of Army forces to the right place at the right time. . . .

Rapidly deployed expeditionary force packages provide immediate options for seizing or retaining the operational initiative. With their modular capabilities, these forces can be swiftly deployed, employed, and sustained for extended operations without an unwieldy footprint. These forces are tailored for the initial phase of operations, easily task-organized, and highly self-sufficient.[45]

The Army, notes the manual, must also be capable of conducting stability operations for the indefinite future.

America is at war and should expect to remain fully engaged for the next several decades in a persistent conflict against an enemy dedicated to U.S. defeat as a nation and eradication as a society. This conflict will be waged in an environment that is complex, multidimensional, and rooted in the human dimension. This conflict cannot be won by military forces alone; it requires close cooperation and coordination of diplomatic, informational, military, and economic efforts. Due to the human nature of the conflict, however, landpower will remain important to the military effort and essential to victory.[46]

Reinforcing the newfound importance of stability operations, the Army's new field manual on counterinsurgency operations, FM 3-24, is the first major Service statement on this form of conflict since the Vietnam War era.[47] The effort was directed by then-Lieutenant General David Petraeus who, as commander of US forces in Iraq, has been credited with putting the doctrine into practice to effect a dramatic turnaround in that country during the last year and a half.[48]

Building upon the efforts of FM 3-24, the Army recently published FM 3-07, *Stability Operations*. As one would expect, FM 3-07 is consistent both with the US national security strategy and its supporting documents, and overall Army doctrine. It embraces the indirect approach to stability operations, declaring that the Army "aims to shift the responsibility for providing security and stability from the international

> **Reinforcing the newfound importance of stability operations, the Army's new field manual on counterinsurgency operations, FM 3-24, is the first major Service statement on this form of conflict since the Vietnam War era.**

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[45] Ibid., p. 1–16.

[46] Ibid., p. viii.

[47] Department of the Army, Field Manual 3-24, *Counterinsurgency* (Department of the Army, December 2006).

[48] Michael Gordon, "A New Commander, In Step with the White House on Iraq," *New York Times*, January 5, 2007, p. A1; and Jim Michaels, "Petraeus Strategy Takes Aim at Post-Vietnam Mind-set," *USA Today*, March 7, 2007, p. 9A.

community to this host nation, with a sustainable level of continuing support from external actors."[49]

Yet there are concerns that the Army, for so long oriented on conventional warfare, may not embrace the new doctrine, which declares that "Army doctrine now equally weights tasks dealing with the population—stability or civil support—with those related to offensive or defensive operations."[50] Lieutenant General William B. Caldwell IV, commander of the Army's Combined Arms Center, candidly warns that "There is going to be some resistance. There will be people who will hear and understand what we are saying, but it is going to take some time to inculcate that into our culture."[51]

In fact, this seems to be a matter of serious concern, as will be discussed presently.

Training

In addition to restructuring the force, the Army is moving to adopt its training to prepare soldiers and their units for irregular warfare operations in Afghanistan and Iraq. A remarkable transformation has occurred at the Army's National Training Center (NTC) at Fort Irwin, California. Not long ago the NTC was optimized for training Army brigades in combined arms, mechanized warfare. Over the past few years the NTC has remade itself. The training area, which is the size of Rhode Island, has become chock-a-block with small Army bases, towns and civilian communities. A dozen "Iraqi villages" dot the landscape. Today there is even a web of tunnels under some larger villages to simulate sewer systems. Efforts are underway at the NTC to construct a town complex of some four hundred structures.[52]

Here Army units must convoy their supplies over distances approaching one hundred miles, while being harassed by "insurgent" forces. To accomplish their mission, American soldiers must recruit men from this "civilian" population for the Iraqi security forces, negotiate with local leaders, all while defending themselves and the local inhabitants against an array of roadside bombs, car bombs, suicide bombers, and mortar attacks.[53] This requires operating in the midst of hundreds of "Iraqis" or

> In addition to restructuring the force, the Army is moving to adopt its training to prepare soldiers and their units for irregular warfare operations in Afghanistan and Iraq.

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[49]   Department of the Army, Field Manual 3-07, *Stability Operations* (Washington, DC: Department of the Army, October 6, 2008), p. 1–8.

[50]   Department of the Army, Field Manual 3-0, *Operations* (Washington, DC: Department of the Army, February 2008), p. vii.

[51]   Michael R. Gordon, "After Hard-Won Lessons, Army Doctrine Revised," *New York Times*, February 8, 2008.

[52]   Denis Steele, "NTC: Between Heaven and Hell," *Army*, July 2008, p. 28. The Defense Advanced Research Projects Agency (DARPA) recently completed construction on a multi-block urban area using construction materials prevalent in Iraq.

[53]   Stephen J. Hedges, "Mock Village Helps GIs See Iraq Reality," *Chicago Tribune*, December 14, 2004, p. 1; and Richard Whittle, "In the Army's Sandbox, No Playing Nice," *Dallas Morning News*, October 9, 2005.

"Afghans"—civilians with native language speaking skills who have been recruited to ensure the training is as realistic as possible.[54]

This level of training is essential, even for soldiers who have been deployed to combat zones in Afghanistan and Iraq. There they confront enemies whose best troops have survived years of off-and-on fighting with American and Coalition forces. These enemy survivors have been at their version of the NTC, day-in and day-out, for years, not a week.[55] At some point, a BCT rotates back to Afghanistan or Iraq. If it is sent back into the area where it was previously deployed, and if it retains sufficient numbers of their soldiers from the previous deployment, this training gap may be mitigated. However, this rarely occurs. If, in this protracted conflict, the US military is not able to deploy units that contain a significant number of veteran soldiers and marines, the training gap between them and their adversary may widen.[56] During the Vietnam War, when US forces had a high percentage of draftees in their ranks who were discharged after a few years' service, including one year in Vietnam, it was said that the United States military had "one year's worth of experience in Vietnam ten times over," whereas many of the communist guerrillas they confronted had a decade or more of experience. A similar phenomenon could occur in today's volunteer military if retention rates decline. If this happens, there will be greater stress on the Army's training infrastructure to make up the difference, as the Service will have to prepare a higher percentage of "green" troops for counterinsurgency warfare. The implications for US military effectiveness could be striking.

There is also the matter of "soft" training. To be sure, soldiers must be proficient in tasks such as detecting and handling improvised explosive devices, conducting convoy operations, clearing urban structures, and manning checkpoints. But counterinsurgency training is even more challenging. Soldiers must also be trained in other tasks that are not central to the "fire and maneuver" or "move, shoot and communicate" skill sets that form the core of conventional combat operations. Among these tasks are those that focus on:

> Possessing an appreciation of cultural norms;

> Maintaining fire power restraint;

> **To be sure, soldiers must be proficient in tasks such as detecting and handling improvised explosive devices, conducting convoy operations, clearing urban structures, and manning checkpoints. But counterinsurgency training is even more challenging.**

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[54] Denis Steele, "NTC: Between Heaven and Hell," *Army*, July 2008, p. 30.

[55] Those units that go to the NTC for training spend three weeks on site. However, the first week replicates the period when the unit is deploying to its new area of operations, while the second week is focused on live-fire exercises, command post exercises and situation training exercises. Only in the final week does the BCT assume control over its area of operations and engage in "free-play" training in the simulated Afghanistan/Iraq training environment.

[56] One reason this might *not* happen is if enemy insurgent forces are suffering severe casualties, or experiencing substantial defections. This could increase substantially the percentage of inexperienced insurgents in their ranks.

> Undertaking civic action programs with local government and civic leaders[57];

> Operating (and perhaps integrating) with local security forces;

> Serving as advisors;

> Providing security and other forms of support to reconstruction efforts; and

> Possessing sufficient language skills to enable these actions to succeed.

It is not clear how well individual soldiers and marines, or small units, can be "trained up" for these tasks prior to their deployment to the combat theater. Training in some skills may be relatively easy. There are, for example, ongoing programs to provide US forces with an appreciation of Afghan and Iraqi customs and cultural norms. Here in America, police training emphasizes restraint in the use of force. These techniques may be applied to train US troops in the form of firepower restraint.

Yet other than personal experience, and relying on well-crafted "lessons learned" reports, it would seem difficult to conduct training in these types of tasks beyond basic military skills (e.g., patrolling). Similarly, building the necessary confidence among local leaders and the population in general, so as to promote civic action, enhance security, and thus win their "hearts and minds" is likely to be, at least in part, a function of US troops' "people skills." Yet even for those possessing the necessary cultural awareness, building up a level of confidence and trust with local Iraqi religious and civic leaders can only occur over time. This cannot be "pre-loaded" within the span of a few weeks at the NTC.[58]

Even for those possessing the necessary cultural awareness, building up a level of confidence and trust with local Iraqi religious and civic leaders can only occur over time.

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[57] The leadership skills required for this task are especially demanding, given that responsibility for stimulating economic development, establishing governance, and instilling the rule of law rests with civilian agencies, such as the State Department and the US Agency for International Development (USAID).

[58] For a discussion of trends in training, and the erosion of the US military's advantage in training on tactics, see CSBA's Strategy for the Long Haul study by Barry D. Watts, *US Combat Training, Operational Art, and Strategic Competence* (Washington, DC: CSBA, 2008).

CHAPTER 2 > **WHAT KIND OF ARMY DO WE NEED?**

> There will be people who naturally will say, "If I can do high-end offense and defense, I can do any lesser kind of operations." What we have found through seven years [of war] is that is not the case.
> —LTG William B. Caldwell IV, Commander,
> US Army Combined Arms Center

OVERVIEW

To address the challenges described above, the Army must be capable of executing two general types of missions, each very different from the other. The Army must be able to conduct:

> Persistent irregular warfare[59] operations, with emphasis on steady-state "Phase 0" operations, to include building partner capacity among threatened states and conducting stability operations. The Army must, however, retain the ability to "surge" forces and to take the lead in carrying out large-scale stability operations when necessary. This mission also involves steady-state operations, principally by Special Operations Forces, to destroy radical Islamist terrorist networks through, among other things, persistent "manhunting" operations for the purpose of capturing or killing senior terrorist leaders.

> Traditional power-projection operations, to include regime change operations against minor nuclear-armed states, such as North Korea, Iran (prospectively), and to secure nuclear weapons no longer under the effective control of a failing or failed

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[59] Irregular warfare is defined as "A violent struggle among state and non-state actors for legitimacy and influence over the relevant population(s). Irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capacities, in order to erode an adversary's power, influence, and will." Thus irregular warfare includes such forms of conflict at stability operations and counterinsurgency. Joint Chiefs of Staff, (JCS) Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, April 12, 2001, as amended through May 30, 2008, p. 281.

nuclear-armed state. This mission is residual of the major theater war (MTW), major regional conflict (MRC) force-planning metric employed in the 1990s, and their successor, the major combat operation (MCO). However, with the prospect of conflict against a nuclear-armed state, this mission is also substantially more challenging. For example, unlike during the two Gulf Wars, the Army would likely be confronted with projecting ground forces absent access to large forward bases (owing to the threat of nuclear attack), defeating an enemy ground force operating more along the lines of Hezbollah in the Second Lebanon War, and perhaps conducting large-scale humanitarian relief operations in a country that may itself be recovering from the effects of a WMD attack.

An Army that can successfully conduct these two missions will likely possess the forces and skill sets relevant for accomplishing other missions along the conflict spectrum, such as homeland defense[60] (e.g., consequence management operations), and defense against irregular warfare rivals employing relatively advanced weaponry, to include G-RAMM and weapons of mass destruction (WMD) and disruption (e.g., "dirty" bombs).[61]

Thus it might be argued that America needs not one Army, but two. This raises the central question of whether the Army will be primarily a general purpose or a full-spectrum force — a "jack of all trades," or orient itself on "mastering several trades" on a lesser scale.

RESOURCES

Budget

Absent some catastrophic event like 9/11 that triggers a new surge in defense spending, the budgets the Army will have to work with over the short-to-mid-term future are likely to experience more modest growth than has been the case so far this decade. The Bush Administration has requested $611 billion for national defense in fiscal year 2009, including $541 billion for the "base" defense budget, with some $518 billion going to the Department of Defense. The 2009 request also includes $66 billion in emergency supplemental appropriations for defense, as a partial down-payment on 2009

> The budgets the Army will have to work with over the short-to-mid-term future are likely to experience more modest growth than has been the case so far this decade.

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[60] This report, as with others in CSBA's Strategy for the Long Haul series, assumes that the Army's ability to conduct the range of operations described above provides it with the basis for conducting operations in the defense of the US homeland, to include border security, stability and consequence management operations.

[61] A dirty bomb, or radiological dispersal device (RDD), combines radioactive material with conventional explosives to disperse radioactive material. While such a weapon is unlikely to cause massive destruction, either in terms of human life or property, its use could have a significant psychological "terror" effect on the targeted population. See http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/dirty-bombs.html. Accessed on August 25, 2008.

war-related costs. Eventually, tens of billions of dollars in additional 2009 funding will have to be provided to cover war-related costs for the full year. This brings the current level of defense spending to its highest level since World War II. Additional large increases in the coming years seem unlikely, given the Bush Administration's latest Future Years Defense Program (FYDP) projections, historical defense spending trends and patterns, and the formidable long-term fiscal challenges confronting the United States, especially those related to rising health care costs, the onset of retirement for the baby boomer generation, and the large federal budget deficits that have been accumulated in recent years.[62]

Compounding the problem, the Congressional Budget Office estimates that, exclusive of war costs, implementing DoD's current long-term plan would require increasing the department's base budget from the requested 2009 level of about $518 billion to an average of some $535–575 billion annually over the next two decades. The low-end ($535 billion) estimate assumes that DoD would be able to hold down cost growth in both operations and support (O&S) activities and weapons acquisition programs far more successfully than it has been able to in the past. Conversely, the high-end ($575 billion) estimate assumes that costs would increase in line with historical experience. If anything, historical cost and spending trends suggest that implementing DoD's existing long-term plan might be even more costly than projected by CBO in its high-end estimate. Given these trends and factors, it seems reasonable to conclude that the Defense Department is likely looking at a plans-funding mismatch on the order of $50 billion or so per year over twenty years, for a total of $1 trillion.

The strain on equipment is even greater now that the Reserve Component is no longer considered a part of the Army's strategic reserve, but serves as an operational reserve. National Guard and Reserve units have been deployed on a regular basis since 9/11. Given that they are called to active service far more frequently than had previously been the case during the Cold War and immediate post-Cold War period, there are significant implications for how they need to be equipped, and for the Army's budget. For example, pre-war ARNG equipment levels stood at 70 percent that of the Active Army, and much of this equipment was old or outdated. The shift of the Reserve Component from a strategic reserve to an operational reserve that deploys on a regular basis requires a substantial upgrade in equipment and training, in order for soldiers in these units to deploy to war zones ready for combat.[63] Between January 2008 and the end of 2009, the Army plans to provide over 400,000 pieces of equipment at a cost of $17.5 billion to the ARNG, and nearly 120,000 equipment items costing $5 billion to the Army Reserve (USAR). The Army is also providing "dual-use"

Historical cost and spending trends suggest that implementing DoD's existing long-term plan might be even more costly than projected by CBO in its high-end estimate.

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[62] For a detailed treatment of the US defense budget, see CSBA's Long Haul Strategy study by Steve Kosiak, *US Defense Budget: Options and Choices for the Long Haul* (Washington, DC: CSBA, 2008).

[63] LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 20.

equipment to the Reserve Components that can be used both to support overseas contingencies and those relating to homeland defense.[64]

As will be discussed presently, the Army's major modernization effort, the Future Combat Systems, is incurring substantial problems with controlling costs, which are now at $160 billion and rising. At the same time, the Service's manpower costs have also been climbing steeply as it attempts to maintain troop quality while increasing end strength by 65,000, during wartime within the constraints of a volunteer force. Total compensation for the average active-duty Service member currently (FY 2009) amounts to some $120,000 a year. Overall compensation per active-duty Service member (exclusive of veterans' benefits) grew by about $24,000 (fiscal year 2009 dollars), or 33 percent in real terms, between 1999 and 2005.[65] Particularly discouraging for the Army, these increases, and those that have followed since then, have not stemmed the decline in Service member quality that has emerged since the onset of the Second Gulf War in 2003. If the Army follows through on its plans to add 65,000 troops to its ranks, personnel costs will increase substantially.[66] The troop increases would require nearly $80 billion over the 2007–2013 period. Once the buildup is complete in 2014, the annual steady-state cost to sustain the additional force would run about $14 billion per year.[67]

In summary, the Army, like the Defense Department (and, indeed, the nation), confronts a tough fiscal environment that makes increasing the defense budget along the lines of what we have seen in recent years a difficult proposition. This is occurring at a time when the Service is in the middle of what promises to be by far the most expensive modernization program in its history, and with troop costs at an all-time high. Given the growing mismatch between the Defense program and the budgets estimated to be available to sustain it, the Army's program is far more likely to confront calls for economies than expansion.

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[64] Among the dual-use equipment being provided are those in ten essential capabilities areas: aviation, engineering, civil support, security, medical, transportation, maintenance, logistics, joint force headquarters, and communications. This capabilities set is, not surprisingly, also highly relevant for stability, security, transition and reconstruction (SSTR) operations. LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 22.

[65] Steven M. Kosiak, *Analysis of the FY 2009 Defense Budget Request* (Washington, DC: CSBA, 2008), p. 16.

[66] Implementing the Army personnel increase, along with an increase in the Marine Corps end strength of 27,000, will cost some $100 billion over the next five years. Ibid., p. 4.

[67] Congressional Budget Office, *Estimated Cost of the Administration's Proposal to Increase the Army's and the Marine Corps's Personnel Levels*, April 16, 2007, p. 6.

Manpower

More than any other Service, the Army's success centers on manpower rather than materiel.[68] The skill and courage of the individual soldier is the bedrock of the Army's overall effectiveness. Ongoing operations find soldiers in short supply, given the "demand signals" received for BCTs from the Combatant Commanders (COCOMs). The challenge to respond to these demands, while preparing to support the Army's goal of fielding a "full-spectrum" force promises to stress the Service and its soldiers still further.

The Army will be asking more of its soldiers, not less. As Lieutenant General Caldwell has observed, "Years ago you heard about the strategic corporal. Well, I think we've all come to understand now it's the strategic private…."[69] Moreover, soldiers must be prepared to conduct stability operations on short notice. Field Manual 3-07 notes that "stability operations rely on military forces quickly seizing the initiative."[70] While yesterday's "strategic corporal" will be tomorrow's "strategic private" at the low end of the conflict spectrum, it does not end there. That same soldier is also expected to be able to transition, on short notice, to function effectively as part of a fast-paced highly networked ground force engaged in high-intensity warfare.

As the Army's new doctrine states, operating effectively as part of a full-spectrum force will challenge soldiers as well as their leaders — the officer and noncommissioned officer (NCO) corps. Here the need for soldiers of exceptional quality risks bumping up against the limits of what the Army can reasonably expect to recruit under current conditions. Despite the Army's heroic efforts to recruit and retain sufficient numbers of soldiers, and of sufficient quality, to field a full-spectrum capable force, the trends are not encouraging. Not surprisingly, recruiting volunteers who face the prospect of repeated deployments to combat zones is more challenging than recruiting for a peacetime force. Consequently, rather than sustaining (let alone increasing) the quality of its full-spectrum capable force, the Army finds the quality of the force is declining.[71]

Take the Army's recruits. To fill its recruitment quotas in numbers sufficient to sustain (and expand) its end strength, the Army finds itself recruiting personnel who fail to meet the Service's weight and body-fat standards. The Army has also lowered other standards. In FY 2007, the Army fell well short of its goal for recruiting high school graduates, with only 79 percent holding a diploma. The high school graduation

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[68] Of course, the Army is the Service most dependent upon its sister Services, especially the Air Force and Navy, the two most capital-intensive of the US military Services.

[69] Department of Defense, "Bloggers Roundtable," LTG William Caldwell, Teleconference Subject: US Army Field Manual 3-0, *Operations*, February 26, 2008.

[70] Department of the Army, Field Manual 3-07, *Stability Operations* (Washington, DC: Department of the Army, October 6, 2008), p. 2–3.

[71] For a thorough treatment of the challenges confronting the Army with regard to manpower, see CSBA's Long Haul Strategy report by Steven Kosiak, *Military Manpower for the Long Haul* (Washington, DC: CSBA, 2008).

rate for recruits had been as high as 98 percent in 1992, during the post-Cold War drawdown, and was as high as 86 percent as recently as 2004.[72] The percentage of recruits requiring a moral waiver to join the Army has more than doubled since 2004. The percentage reached 11 percent in FY2007, rising from 4.6 percent three years earlier.[73] The Army also finds itself accepting recruits who cannot meet its weight and body-fat standards.[74]

This decline in recruit quality has persisted despite the Service's increasingly aggressive use of financial incentives to improve recruiting. The Army is also struggling to recruit new soldiers in sufficient numbers.

This decline in recruit quality has persisted despite the Service's increasingly aggressive use of financial incentives to improve recruiting. The Army is also struggling to recruit new soldiers in sufficient numbers. In order to meet its quota in 2007, the Army began offering enlistees up to $20,000 as a "QS" (for "Quick Ship") bonus in exchange for promising to ship out to basic training within thirty days of signing up. Recruits who are willing to sign up for four years and report quickly can get as much as $40,000 over the course of their enlistment.[75]

As the Army struggles to keep sufficient numbers of troops in the field to meet the demand, its sister Services have pitched in to help. Of the 25,453 airmen assigned to combat zones in 2007, 6,293 were deployed on "in lieu of" missions—those assigned to airmen in lieu of soldiers. The Navy is also doing its part: over 8,000 sailors have been engaged in "individual augmentee" assignments in combat zones to replace soldiers and marines.[76]

The US Government also has sought to make up for the shortage of soldiers by relying increasingly on private security contractors. Some 30,000 are currently deployed performing duties once performed by soldiers. (Nearly 200,000 private contractors in all were supporting the war effort in Iraq and Afghanistan in 2007.) It is far from clear that this approach has merit. Retired Army General David M. Maddox, who reviewed the impact of contractors as part of an Army review commission, cautions that the Army "has not fully recognized the impact of a large number of contractors" in a war zone, or "their potential impact to mission success."[77] Another Army general officer who observed private security contractors in Iraq was more direct:

> These guys run loose in this country and do stupid stuff. There's no authority over them, so you can't come down on them hard when they escalate force. They shoot people, and someone else has to deal with the aftermath. It happens all over the place.[78]

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[72] "Military Officers Say Their Recruiting Goals Are Being Met," *National Journal's Congress Daily PM*, January 31, 2008.

[73] Jim Michaels, "More Army Recruits Require Waivers," *USA Today*, April 7, 2008, p. 1.

[74] "Military Officers Say Their Recruiting Goals Are Being Met," *National Journal's Congress Daily PM*.

[75] Karoun Demirjian, "Army is Offering a Quick $20,000, *Chicago Tribune*, August 4, 2007, p. 1.

[76] Otto Kreisher, "The Ground Force Taskings Go On," *AIR FORCE*, March 2008, pp. 42, 44.

[77] Walter Pincus, "US Cannot Mange Contractors in Wars, Officials Testify on Hill," *Washington Post*, January 25, 2008, p. A5; and "Blackwater's Impunity," *New York Times*, May 16, 2008.

[78] Jonathan Finer, "Security Contractors in Iraq Under Scrutiny After Shootings," *Washington Post*, September 10, 2005, p. A1.

Simply stated, it is far from clear that private security contractors are a good substitute for Army soldiers. They may not even constitute a net benefit when one realizes that, by engaging private security firms, the US Government (i.e., the armed forces) is bidding against itself for the services of young Americans.

There are some who argue service in the Army should be opened up to immigrants who, in exchange for their commitment, would receive US citizenship. Yet this is already occurring to a significant degree. Over 20,000 noncitizens are on active duty in the US military. Two years ago, nearly 70,000 members of the armed forces were foreign-born.[79] There is also a more fundamental issue here regarding the willingness of Americans to fight for their own security, and to accept the responsibilities that come when those they elect to represent them decide to wage war. Unfortunately, this issue lies beyond the scope of this report.

The decline in quality is also being increasingly felt in the Army's Non-Commissioned Officer (NCO) corps. NCOs mentor junior enlisted soldiers in soldier skills and leadership, setting an example for them and providing an indispensable link between officers and their troops. For this reason the NCOs are often referred to as the "backbone" of the Army. The NCOs' importance is clearly seen in the institutional crisis that confronted the Army during the Vietnam War when the Service found itself compelled to adopt accelerated promotions to fill shortages in the NCO ranks. The widespread promotion of enlisted soldiers (sometimes referred to as "shake-and-bake" sergeants) unprepared to handle NCO responsibilities played a major role in the breakdown in order, discipline, and unit effectiveness during that war.

There are signs the same process may be at work today. In 2005 the Army began automatically promoting enlisted personnel in the rank of E-4 to E-5 (sergeant), based solely on the soldiers' time in service, without requiring them to appear before a promotion board. In April 2008 the policy was extended to include promotions from E-5 to E-6 (staff sergeant). Although a soldier's name can be removed from consideration by his or her commander, each month the soldier's name is automatically placed back on the promotion list.[80] The Army was short over 1,500 sergeants when the policy went into effect. Since then, the shortage has been reduced by over 70 percent, but numbers do not reveal quality — or lack thereof.[81]

> The decline in quality is also being increasingly felt in the Army's Non-Commissioned Officer (NCO) corps.

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[79] James Pinkerton, "Thousands of Immigrants in US Military," *Houston Chronicle*, March 19, 2008, p. 1.

[80] While a soldier's commanding officer can remove his or her name from the promotion list, there are pressures at work that discourage this. Failure to advance a soldier to NCO rank could make the soldier less willing to re-enlist. It could also hurt unit morale if other units in the same organization (e.g., other companies in a battalion) are promoting soldiers as they hit their time-in-service points, but one unit is not. Failure to promote, which results not only in an increase in rank but in pay and status, can also be seen by soldiers as a social issue, in terms of how a soldier is viewed in his or her community, and the level of support they can provide to their family.

[81] Bill Sasser, "Strained by War, US Army Promotes Unqualified Soldiers," July 30, 2008, accessed at http://www.salon.com/news/feature/2008/07/30/sergeants/index.html?source=rss&aim=/news/feature, on August 29, 2008.

The shortage also finds the Army increasing the number of involuntary extensions of duty—the "stop loss" policy. The number of soldiers affected by the stop loss increased by 43 percent between 2007 and 2008. Revealingly, nearly half of those affected by the stop loss are NCOs. Army leaders believe the program will have to be extended at least through 2009.[82] Moreover, as the Army suffers from a shortage of junior officers as well, many enlisted personnel with high potential are being diverted into Office Candidate School, further diluting leader quality. This situation will only be exacerbated by the planned 65,000 increase in the Army's end strength.

Nor is the problem limited to junior NCOs. An Army study of soldiers' mental health found that 27 percent of NCOs on their third or fourth combat tour exhibited post-traumatic stress disorder (PTSD) symptoms, vice 18.5 percent of those who had completed their second tour, and 12 percent among those who finished their first tour. The Army study found that those NCOs who had served multiple deployments reported "low morale, more mental health problems and more stress-related work problems."[83]

The Army's problems extend to the officer corps as well. In 2003, roughly 8 percent of the Army's officers with between four and nine years of experience left the Service. Three years later, the attrition rate had jumped to 13 percent. Of the nearly 1,000 cadets from the West Point class of 2002, 58 percent are no longer on active duty.[84] An effort in the Fall of 2007 to entice 14,000 captains to extend their commissions fell short by roughly 1,300.[85] Making matters worse, the Army will need another 6,000 captains as it grows by 65,000 troops.[86] Colonel George Lockwood, the director of officer personnel management for the Army's Human Resources Command, informed the Service's leadership that "[t]he Army is facing significant challenges in officer manning, now and in the immediate future." There is a projected shortfall of roughly 3,000 captains and majors until at least 2013, with the Army counting only about half the senior captains that it needs.[87]

An increasing percentage of the Army's new officers, however, are not being commissioned from the traditional sources of West Point and ROTC programs, which supply recruits fresh from college. Rather, the Army has been increasingly compelled to pull soldiers, most of whom have not graduated college, from the ranks and send them to Officer Candidate School. The number of OCS graduates has grown

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[82] Tom Vanden Brook, "More Forced to Stay in Army," *USA Today*, April 22, 2008, p. 1; and Pauline Jelinek, "General: Army Will Need 'Stop-Loss' Through '09," *Houston Chronicle*, April 22, 2008.

[83] Thom Shanker, "Army Worried By Rising Stress of Return Tours to Iraq," *New York Times*, April 6, 2008, p. A1.

[84] Andrew Tilghman, "The Army's Other Crisis," Washington Monthly, accessed at http://www2.washingtonmonthly.com/features/2007/0712.tilghman.html, on September 8, 2008.

[85] Tom Vanden Brook, "Deployments Strain Army Recruiting, Retention," *USA Today*, p. 6.

[86] Bryan Bender, "Military Scrambles to Retain Troops," *Boston Globe*, March 7, 2008.

[87] Andrew Tilghman, "The Army's Other Crisis," Washington Monthly, accessed at http://www2.washingtonmonthly.com/features/2007/0712.tilghman.html, on September 8, 2008.

dramatically since the late 1990s, rising from roughly 400 a year to over 1,500 a year, or more than the graduating class at West Point.[88] Again, as with the NCO corps, as officer quality has declined, promotion rates have increased. Instead of the traditional promotion rates of 70 to 80 percent of eligible officers to major, today over 98 percent of eligible captains are promoted to major.[89]

These trends are worrisome, especially for an Army that intends to place greater demands on its soldiers and their leaders.

MODERNIZATION

The Future Combat Systems

The need for high-quality manpower is evident when one examines the Army's modernization plans. The Future Combat Systems Brigade Combat Team (FCS BCT) is the cornerstone of the Army's modernization efforts. In fact, it is barely an exaggeration to say that the FCS program *is* the Army's modernization program.[90]

The FCS, the foundation of the Army's Future Force, has the goal of being strategically responsive and dominant at every point on the conflict spectrum, from full-scale conflict to irregular warfare. However, it is principally designed for offensive operations in a conventional warfare environment.[91] The FCS is designed to place the soldier in a battle network comprising a range of manned and unmanned combat systems, as well as the network itself. The Army envisions the FCS incorporating and exploiting information employed within the network, enabling the force to develop a common, relevant operating picture, thereby achieving a major advantage in situational awareness. In so doing, the FCS has the potential to provide soldiers with vastly increased survivability and lethality, enabling them to take the fight to the enemy before the enemy has time to react: hence the FCS vision to "See first, understand first, act first, and finish decisively."

The FCS BCT is designed for expeditionary operations, and its major weapon systems are projected to be considerably—and in some cases, radically—lighter than

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[88] Andrew Tilghman, "The Army's Other Crisis," *Washington Monthly*, accessed at http://www2. washingtonmonthly.com/features/2007/0712.tilghman.html, on September 8, 2008.

[89] Ibid.

[90] The Army is procuring a number of systems as a means of bridging the gap between the current force and the Future Combat Systems. Among the systems in current production are the AH-64 Apache attack helicopter, the UH-60 Blackhawk utility helicopter; the CH-47F helicopter; and the Stryker family of combat vehicles. The Stryker is intended to provide a relatively light and easily deployable combat vehicle to bridge the gap between today's lethal, but relatively heavy forces, and the more capable and deployable systems being developed under the FCS program.

[91] "Although *optimized for offensive operations*, the FCS BCT will be capable of executing full-spectrum operations." [Author's emphasis] LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 69.

their predecessor systems.[92] This is reflected in the program's performance metrics. Like the SBCT's Stryker vehicle, FCSs are intended to be transportable in a C-130-type aircraft. However, the FCS has failed to meet this goal, since its original vehicle target weight has grown from twenty tons or less to between twenty-seven and thirty tons. Thus it will need to be air transported by larger, C-17 aircraft, and will not be able to deploy substantially faster than other Army brigades.[93]

Unlike the Stryker family of combat vehicles, the FCS is designed to be as survivable and as lethal as the Army's seventy-ton M1A2 Abrams main battle tank.[94] The FCS design has stimulated a major shift in Army thinking with respect to the conduct of operations, particularly the armor community it most directly affects. Mandating a 70 percent reduction in weight from the Abrams tank and a 50 percent reduction in internal volume (to under twenty tons and between 300 and 400 cubic feet, respectively) to accommodate C-130 cargo capacity limitations runs directly counter to the historical trends of ever-increasing size, weight, and volume in ground combat vehicles. Consequently, few seasoned observers have been surprised by the growth in the system's weight, as described above.

> **The FCS may not only represent a marginal improvement in terms of deployability, it may also be far less survivable than more heavily armored systems, like the Abrams tank.**

Given these trends, the FCS may not only represent a marginal improvement in terms of deployability, it may also be far less survivable than more heavily armored systems, like the Abrams tank. Absent a revolution in armor technology, the lightly armored FCS must rely on situational awareness and mobility to be as survivable as the Abrams; the only way to do this is to avoid getting hit. While this may be possible against a combined arms mechanized enemy force in open battle, it is far less plausible in urban warfare and against an enemy waging irregular warfare. In these situations, armored vehicles would be more exposed to mines, improvised explosive devices (IEDs), and ambushes employing these weapons as well as man-portable anti-tank guided munitions. While FCS combat vehicles are designed to incorporate active defenses, they can, of course, be outfitted on the M1. In fact, this has already been taking place.[95]

The FCS comprises eight manned ground vehicles (MGVs), four unmanned ground vehicles (UGVs), and two unmanned aerial vehicles (UAVs), for a total of fourteen major systems. This represents a reduction from the original FCS design, which included eighteen systems. It also includes unattended ground sensors (UGS), a Non-Line of Sight Launch System (NLOS-LS), and advanced tactical and urban sensors,

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[92] An early design criteria called for all FCS systems to be transportable on C-130 cargo aircraft. While it appears some FCS systems will exceed the weight limits for C-130 lift, they will still be far lighter than current Army's combat vehicles, such as the Abrams tank and Bradley infantry fighting vehicle.

[93] Alec Klein, "The Army's $200 Billion Makeover," *Washington Post*, December 7, 2007, p. A1.

[94] Dr. A. Michael Andrews, "Army S&T and the Objective Force…Accelerating the Transformation," Briefing (Washington, DC: AUSA Future Combat System Symposium, June 27, 2000), p. 7.

[95] I am indebted to my colleague, Robert Martinage, for raising these insights to my attention.

all of which are designed to be linked by a state-of-the-art network.[96] Specifically, the FCS includes the following systems:

> Mounted Combat System (MCS). The XM1202 MCS provides line-of-sight and beyond line-of-sight (BLOS) firepower enabling BCTs to close with and destroy the enemy. It is armed with a 120mm lightweight cannon.

> Infantry Carrier Vehicle (ICV). The XM1206 ICV comes in four versions: a Company Commander, a Platoon Leader, a Rifle Squad, and a Weapons Squad. A standard infantry platoon will include an ICV Platoon Leader variant, three ICV Rifle Squad variants, and an ICV Weapons Squad variant. Each will carry a nine-person squad. The vehicle is armed with a 30mm cannon and 7.62mm machine gun.

> Reconnaissance and Surveillance Vehicles (RSVs). The XM1201 RSV is the unit's "eyes and ears" on the battlefield, featuring a suite of advanced sensors to "detect, locate, track, classify, and automatically identify targets from increased stand-off ranges under all climatic conditions, day or night." The RSV is equipped with UGSs, a Class I UAV and a Small Unmanned Ground Vehicle. It is armed with a 30mm MK44 cannon and a M240 coaxial machine gun.

> Non-Line of Sight Cannon (NLOS-C). The XM1203 NLOS-C is a self-propelled howitzer that provides extended-range indirect fire support employing a range of munitions that includes special-purpose capabilities to provide a variety of effects upon demand, including precision-guided fires using the XM982 Excalibur guided munition.

> Non-Line of Sight Mortar (NLOS-M). The XM 1204 NLOS-M provides short to mid-range indirect fire support, employing a range of 120mm munitions.

> Recovery and Maintenance Vehicle (FRMV). The XM1205 FRMV provides recovery and maintenance support to the BCT.

> Medical Vehicles (MV-T and MV-E). The Medical Vehicle-Evacuation (MV-E) is used for casualty evacuation, while the Medical Vehicle-Treatment (MV-T) supports more rapid casualty interventions and evacuation from the battlefield.

> Command and Control Vehicle (C2V). The XM1209 C2V is the "hub of battlefield command and control," enabling commanders and their staffs to access and exploit the FCS battle network.

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[96] The FCS descriptions presented below are drawn from https://www.fcs.army.mil/systems/mcs/index.html, accessed on September 4, 2008.

Unmanned Ground Vehicles (UGVs)

> Multifunctional Utility/Logistics and Equipment (MULE) Vehicle (MULE-T). The XM1217 (MULE-T) supports dismounted and air assault operations. It can be transported by sling under military rotorcraft and comes in three variants: transport, countermine, and Armed Robotic Vehicle (ARV)-Assault-Light (ARV-A-L).

> Countermine MULE Vehicle (MULE-CM). The XM1218 MULE-CM supports dismounted and air assault operations, detecting, marking and neutralizing anti-tank mines. It is equipped with an integrated mine detection mission package from the Ground Standoff Mine Detection System (GSTAMIDS).

> Small Unmanned Ground Vehicle (SUGV). The XM1216 SUGV is a lightweight, manportable UGV capable of conducting military operations in urban terrain, tunnels, sewers and caves.

FIGURE 3. **THE FCS "SYSTEM OF SYSTEMS"** *
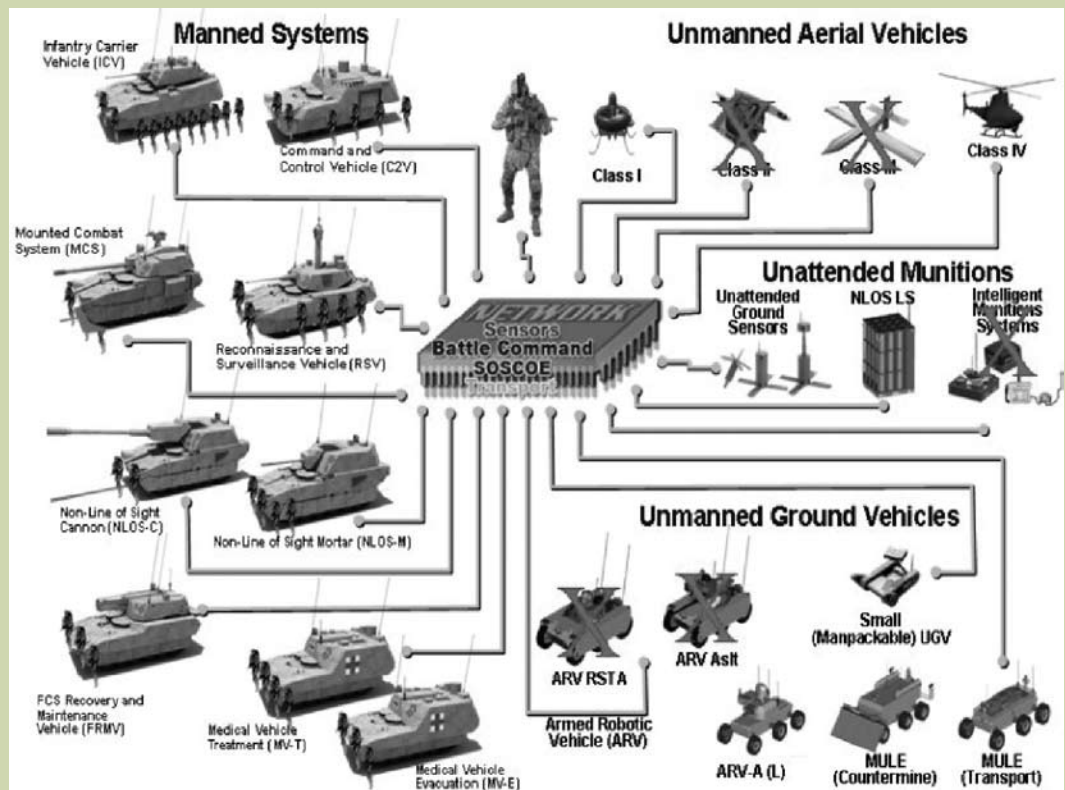
* The systems marked with an "x" are the four that have been dropped from the original eighteen.
Source: Department of the Army

Unmanned Aerial Vehicles

> Class I Unmanned Aerial Vehicle. The XM156 Class I UAV is a platoon-level asset that provides soldiers with RSTA support—to include hover and stare capability—and a laser-designation capability. The entire system weighs less than fifty-one pounds. The system is scheduled for fielding in FY 2011.

> Class IV Unmanned Aerial Vehicle. The XM157 Class IV UAV is designed for support at the brigade level of operations. It provides: wide band communications and can serve as a wide-band communications relay; standoff Chemical, Biological, Radiological and Nuclear (CBRN) detection with on-board processing; a long-endurance persistent stare capability; and wide area surveillance with the ability to cross-cue multiple sensors. The Class IV UAV development is linked with the Navy's Fire Scout program.

The Army has been pursuing an aggressive plan with regard to fielding the FCS family of capabilities. The Service's original plans envisioned the FCS moving into the system development and demonstration phase in FY 2006, beginning production in FY 2008, and being deployed to the field in FY 2010.[97] The rapid pace was driven by a sense among the Army leadership that, in the words of General Shinseki, who initiated the program, "If we don't have these systems fielded by the end of this decade [i.e., 2010], we begin to lose relevancy."[98]

However, owing to technical and funding constraints, the Army has restructured the program three times since 2003, most recently in June 2008, and delayed the fielding of the initial FCS units until FY 2015, at the earliest, five years beyond General Shinseki's original deadline.[99] These restructurings are intended to accelerate the fielding of individual technologies to forces in the field through a process known as "spin outs," and to reduce the program's scope from eighteen to fourteen systems. The Army also cancelled the Comanche helicopter, which was to play a central role in FCS operations.[100]

Owing to technical and funding constraints, the Army has restructured the program three times since 2003, most recently in June 2008, and delayed the fielding of the initial FCS units until FY 2015, at the earliest.

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[97] John G. Roos, "Tools of Transformation," *Armed Forces Journal* (October 2001), p. 58.

[98] Glenn W. Goodman, Jr., "Futuristic Army Vision," *Armed Forces Journal* (May 2001), p. 28.

[99] The Army has insisted that funding shortfalls alone drove the initial decisions to delay the FCS fielding. Megan Scully, "Riggs: Affordability Driving Force Behind FCS Schedule," *Inside the Army* (May 12, 2003), p. 1.

[100] General Shinseki declared Comanche to be the "quarterback of whatever we see offensively in terms of deep-armed reconnaissance [and] armed escort for ground forces." According to LTG John Riggs, former Director of the Future Task Force, the Army's fleet of helicopters had neither the range nor the reaction time to support the projected FCS force. General Jack Keane, then serving as the Army's Vice Chief of Staff, confirmed this when he declared that "Comanche is integral of the Objective [Future] Force of the Army, and we see it working hand in glove with the Future Combat System, our centerpiece ground component...." Frank Wolfe and Marc Strass, "Keane: Comanche Vital to Objective Force, Army Has No Plans for Alternatives," *Defense Daily* (July 25, 2002), p. 1.

As with any major modernization effort that seeks to incorporate new, unproven technologies and concepts of operation, the Army is incurring "technical risk."

Spin Out 1 consists of FCS (BCT) Battle Command capability, the Army's Joint Tactical Radio System (JTRS)[101], Unattended Ground Sensors, the Non Line of Sight-Launch System, the small unmanned ground vehicle (SUGV) and the Class I Block O Unmanned Air Vehicle. These systems are currently being evaluated by the 5th Brigade, 1st Armored Division, which is serving as an Army Evaluation Task Force (AETF).[102] The Army plans to provide Spin Out 1 equipment to Infantry Brigade Combat Teams. This shifts the focus away from an earlier emphasis on the heavy BCTs, which had been scheduled to receive the spin outs in 2011; now the IBCTs will receive the spin outs in 2011, as opposed to their originally scheduled date of 2014.[103]

In the interim, the Army is moving early versions of FCS components to forces in Afghanistan and Iraq. For example, eighteen Micro Aerial Vehicles (MAVs) are deployed with Navy Explosive Ordnance Disposal units, and an Army BCT is deploying to Iraq with thirty-six MAVs. Additionally, there are approximately 4,000 robots in combat theaters today. Many of these systems are precursors like the FCS Small Unmanned Ground Combat Vehicle that performs vital IED functions that might otherwise need to be conducted by soldiers.[104]

Program Risk

As with any major modernization effort that seeks to incorporate new, unproven technologies and concepts of operation, the Army is incurring "technical risk." As the Army's original concept for the FCS notes, "Technology is not a panacea, and it brings its own set of unique challenges and vulnerabilities."[105] The Army's challenge is to surmount formidable technological challenges on a range of capabilities key to its transformation strategy—from meeting strategic lift weight limitations, to system weight and support reductions, to new forms of munitions, to novel forms of propulsion, to advanced self-protection capabilities, to the integration of a wide array of information systems comprising the FCS battle network.

At present, it appears the Army's exposure to technical risk is substantial. For example, as early as 2001 the Army Science Board concluded that, of the thirty-two technologies required to support the fielding of the Future Force, sixteen will not be

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[101] The Joint Tactical Radio System (JTRS, pronounced "Jitters") is a family of affordable, high-capacity tactical radios designed to provide soldiers with both line-of-sight and beyond-line-of-sight command, control, communications and intelligence (C4I) capabilities. Accessed at http://www.globalsecurity.org/military/systems/ground/jtrs.htm, on September 5, 2008.

[102] LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 66.

[103] Nathan Hodge, "US Army Decides to Restructure FCS Programme," *Jane's Defense Week*, July 2, 2008, p. 7.

[104] LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 60.

[105] United States Army White Paper, *Concepts for the Objective Force* (Washington, DC: US Army, November 2001), p. 15.

ready by the time the initial units of the force are being fielded.[106] Two years later, in 2003, the Defense Science Board Task Force's Report of the Independent Assessment Panel for the Future Combat System concluded that of thirty-one technologies identified as critical to the FCS, only seven had achieved a "green" rating.[107]

Five years later, a Government Accountability Office (GAO) report raised similar concerns over the program's viability. The GAO noted that "The FCS program is recognized as being high risk and needing special oversight."[108] Specifically, the GAO found:

> The amount of estimated software code required for the FCS network and platforms has nearly tripled since 2003, to over 95 million lines. The software coding requirements exceed those of any other US weapon system by a wide margin.

> The first large-scale demonstration of the FCS network is scheduled for 2012, only one year before the Army plans to initiate production. Also of concern, the Army will not attempt a large-scale demonstration of its battle network until after the FCS manned ground vehicles, whose effectiveness is highly dependent upon the network, are already designed and prototyped.

> The FCS software development is further compromised by incomplete requirements and designs for the battle network. Hence the Army is projecting the dramatic increases in force effectiveness based on results achieved solely from modeling and simulation, which may or may not be validated by field demonstrations.

> As revealed by earlier assessments, a number of key FCS technologies remain at low maturity levels. According to the Army's own latest technology assessment, only two of the FCS's forty-four critical technologies have achieved maturity levels that should have been demonstrated at program start, according to best practice standards.[109]

The GAO concludes that "It is not clear if or when the information network that is at the heart of the FCS concept can be developed, built and demonstrated."[110] The Army's

In 2003, the Defense Science Board Task Force's Report of the Independent Assessment Panel for the Future Combat System concluded that of thirty-one technologies identified as critical to the FCS, only seven had achieved a "green" rating.

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[106] Office of Program Analysis and Evaluation, *Army Transformation*, Briefing, July 26, 2001.

[107] "Objective Force and Future Combat Systems Independent Assessment Panel," Briefing (May 2, 2003), pp. 59–60. The ratings are used to determine technology readiness levels for the Technology Readiness Assessment (TRA) required for a program to enter Milestone B. DoD acquisition guidelines call for key technologies to be rated at TRL 6 — "demonstration in a relevant environment" — or "green" — prior to initiation of system development and demonstration (SDD). Despite its technological immaturity, the FCS program proceeded to Milestone B (i.e., the start of the SDD phase), which means its constituent technologies have demonstrated an "affordable increment of military-useful capability…in a relevant environment." Two of the critical technologies were rated "red," meaning that "no acceptable sources were identified to meet the need for these technologies."

[108] Testimony, Paul L. Francis, General Accountability Office, "2009 Review of Future Combat System Is Critical to Program's Direction," Subcommittee on Air and Land Forces, Committee on Armed Services, House of Representatives, April 10, 2008, p. 3.

[109] Ibid., pp. 4–6.

[110] Ibid., np.

former assistant secretary for acquisition, technology and logistics, Claude Bolton, has expressed concerns over whether the Army will have sufficient bandwidth to support the network, even if it is technically feasible.[111] In short, the Army has placed itself in a difficult position with respect to the FCS program, as it is unclear whether the battle network essential to its success can be realized at an acceptable cost and within the projected time frame. Moreover, it is open to debate whether the battle network, if it can be created, will provide enough payoff in terms of enhancing force effectiveness to justify its expense. When one considers that the Army has essentially bet its future on the FCS, the program's current status cannot help but be a cause for concern.

<div style="color: olive; font-weight: bold; text-align: right;">
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The Army also faces "fiscal risk." The Service estimates the FCS will cost around $160 billion. This estimate has held steady over the last year, even though the Army has reduced the FCS program from eighteen systems to fourteen. The Government Accountability Office believes the program could run as much as $200 billion.[112] Two other independent cost estimates, one undertaken by the Institute for Defense Analysis (IDA), and the other by the Office of the Secretary of Defense's Cost Analysis Initiatives Group (CAIG) show results significantly higher than those presented by the Army. These estimates use historical cost growth rates for defense programs, whereas the Army estimates do not.[113]

The FCS concept also involves some level of what might be termed "joint risk," in that the Army is counting heavily on its sister Services to enable its operations. In fact, the Future Force concept of operations includes important assumptions concerning joint C4ISR, to include joint operational and tactical sensor-shooter linkages, integrated logistics and strategic and operational lift. The Army approach also makes major assumptions with respect to the kind of support it will receive from the Air Force and Navy in an anti-access/area-denial environment, to include "a comprehensive joint force protection umbrella that includes air and missile defense [that] provides security of air and sea ports of debarkation, and enables uninterrupted force flow, against a diverse variety of anti-access threats, *including weapons of mass effects*."[114]

Army assumptions with respect to the capabilities that its sister Services will have to support the Future Force seem optimistic. A number of questions have yet to be

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[111]   Kris Osborn, "US Army Faces Spectrum Crunch," *Defense News*, January 7, 2008, p. 1. Osborn notes that even the Army's efforts to exploit data compression, as with its JTRS radios, represents only a "Band-Aid," not a solution to the problem. The Defense Science Board has also raised concerns over the amount of FCS code being developed by foreign programmers, noting that "malicious code is a key concern of the FCS program." The DSB went on to declare that it "lacks confidence in current tools for detecting malicious code." Alec Klein, "The Complex Crux of Wireless Warfare," *Washington Post*, January 24, 2008, p. D1.

[112]   Andrea Shalal-Esa, "Army Defends Progress on Modernization Program," Reuters.com. May 13, 2008.

[113]   Testimony, Paul L. Francis, General Accountability Office, "2009 Review of Future Combat System Is Critical to Program's Direction," Subcommittee on Air and Land Forces, Committee on Armed Services, House of Representatives, April 10, 2008, p. 10.

[114]   US Army Training and Doctrine Command, TRADOC Pamphlet 525-3-0, *The United States Army Objective Force Operational and Organizational Concept* (Draft) (Fort Monroe, VA: TRADOC, December 18, 2001), p. 20.

answered. Which Service (or Services) will provide the strategic lift of the type and in the quantities required by the FCS force? Can other Services provide missile defenses sufficiently effective to enable FCS and other BCT deployments in an A2/AD threat environment? Can they rapidly defeat the enemy's anti-access forces? Will they quickly clear littoral zones and establish sea control over coastal areas to facilitate the rapid resupply of rapidly deploying Army units? Will they provide their respective elements of a joint C4ISR architecture? It is far from clear that the Air Force and Navy either plan to, or can, develop the capabilities needed to execute these key enabling missions as quickly or effectively as the Army anticipates. In brief, the Army may be taking on considerable risk in assuming that its sister Services will provide key enabling capabilities for its Future Force.

Finally, the Army is assuming what might be termed "operational risk," meaning that the Future Force may be optimized for conflicts that are not likely to be encountered, rather than those that will be more likely or more demanding. Here the risk has three dimensions. First, the Army may find it difficult to perform its role as part of a joint force engaged in regime change operations against a minor nuclear-armed power. Second, the Army may be fielding more capacity for this kind of mission than is warranted, given the range of contingencies for which it must prepare. Third, the Army may find that, while its full-spectrum force is weighted toward conventional war, the capabilities associated with that form of conflict may undermine the Service's efforts to field forces that are highly effective in irregular warfare, particularly stability operations.

The Army's vision of how its Future Force will operate is, in one sense, truly revolutionary. It displaces the combined arms mechanized operations that have dominated major conventional warfare since the introduction of the blitzkrieg in the early days of World War II with a force built around a battle network whose focus is not to "close with and destroy the enemy," but rather to fight the decisive engagement at extended ranges, using information and precision fires to "see first, understand first, act first, and finish decisively." However, several serious risks remain associated with this vision.

The great risk is in creating an Army for the "wrong" future. The Service's force structure and modernization efforts appear focused heavily on open battle against an enemy with conventional forces, even though there is no compelling evidence that any current or prospective rivals have fielded, or plan to field, forces that would present this kind of challenge. This tilt of the full-spectrum force in the direction of conventional warfare courts risk by not adequately balancing the Future Force to account for the full range of operational contingencies the Army is likely to confront.

Then there is the risk that the Army may also be over-emphasizing the forces required to address the A2/AD threat. To be sure, the Army may confront a contingency in which it must deploy substantial numbers of BCTs rapidly and sustain them in an A2/AD threat environment, to include cases where the enemy has a small nuclear arsenal. However, if the Air Force and Navy are able to suppress promptly an enemy's

The great risk is in creating an Army for the "wrong" future. The Service's force structure and modernization efforts appear focused heavily on open battle against an enemy with conventional forces.

A2/AD capabilities to enable the Army to deploy rapidly into the combat zone at an acceptable level of risk, it is not clear that a ground force along the lines envisioned by the Army would be necessary.

Simply stated, as long as the US military maintains the air superiority that enables persistent reconnaissance, surveillance and target acquisition and on-call precision strikes, the joint force can "see first, understand first, act first, and finish decisively" against any enemy seeking to concentrate ground forces and engage in traditional conventional combat operations. This capability was demonstrated in the Second Gulf War, when US air power proved so effective that the Army had no need to engage in any significant tank battles with Iraq's Republican Guard.[115] American air power saw the Iraqi combined arms mechanized forces first, understood what they were trying to do, and acted before the enemy could take effective action, so that when US Army and Marine Corps ground forces encountered them, they could finish the Iraqis off decisively. Investing upwards of $200 billion to create a stand-alone Army capability through the FCS program hardly seems the best use of what are likely to be increasingly scarce resources.

On the other hand, if the Air Force and Navy are unable to penetrate and fracture an enemy's A2/AD forces and create the conditions for a modern D-Day, the Army will confronts a situation similar to a latter-day Gallipoli or Anzio, where the costs of introducing ground forces becomes prohibitively high.

Hence the irony: the Army's Future Force, configured around the FCS, will likely be deployable only against an A2/AD threat that has already been defeated by air and maritime forces. Those same forces, however, could locate, track, and destroy enemy ground forces operating in the open, which would likely compel the enemy to move into restricted terrain (e.g., urban areas) and employ irregular warfare tactics, for which the FCS is poorly suited. During the major combat operations phase of the conflict, Army forces would likely need to engage in protracted security, stability, transition and reconstruction (SSTR) operations. On the other hand, if the Air Force cannot stage out of forward air bases and if the Navy is forced to operate outside the littoral, it is difficult to see how an enemy's A2/AD system could quickly be degraded to the point where significant Army forces could be introduced quickly and at acceptable cost. Simply stated, solving the A2/AD challenge enables the Future Force–while marginalizing it at the same time.

Third, how effective will the FCS-centered Future Force be in irregular warfare? Both Army doctrine and the statements of Army leaders note the substantial differences in the character of conventional operations and those associated with irregular warfare (e.g., counterinsurgency; stability operations; foreign internal defense). This difference involves not only the skill sets required of soldiers, but extends to their equipment as well.

> **As long as the US military maintains the air superiority that enables persistent reconnaissance, surveillance and target acquisition and on-call precision strikes, the joint force can "see first, understand first, act first, and finish decisively" against any enemy seeking to concentrate ground forces and engage in traditional conventional combat operations.**

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[115] Andrew F. Krepinevich, *Operation Iraqi Freedom: A First-Blush Assessment* (Washington, DC: CSBA, 2003), pp. 20–21.

Intelligence is a critical factor in every form of warfare, but especially so in operations at the lower end of the conflict spectrum. It is hardly an exaggeration to say that if Coalition forces in Afghanistan and Iraq knew the enemy's location, the conflict would be resolved quickly and successfully. This sort of intelligence is typically derived primarily from the native population, within which the insurgent forces attempt to blend, rather than by systems such as UAVs or unattended ground sensors (although these capabilities can prove to be valuable in a supporting role). That is why defeating an enemy waging forms of irregular warfare — insurgency in particular — depends on winning the "hearts and minds" of the local population. Ground forces attempting to accomplish this, or failing to accomplish this, often find themselves vulnerable to attacks by irregular forces.

The Army's FCS units will rely on "networked sensors and unmanned vehicles [to] allow companies and platoons to develop the situation with far greater precision before making contact with the enemy." These capabilities may work in detecting conventional enemy forces, but it is difficult to see how they would be the primary means of identifying insurgent elements, unless they were massed for attack. Nevertheless, the Army argues that "These capabilities are essential in irregular warfare typically fought among the population."[116] Thus the FCS Reconnaissance Strike Vehicle is equipped with unattended ground sensors, along with a small unmanned ground vehicle and a Class I unmanned aerial vehicle system; but these systems would appear to be of limited utility in identifying an enemy embedded in the noncombatant population. A far better use of resources, it would seem, would involve human intelligence teams working among the population and with local security forces (e.g., the police).

Given these considerations, it is not clear that the FCS, even if it works as the Army hopes, will prove worth the enormous investment in resources, either in terms of its effectiveness at the high or the low end of the conflict spectrum.

Finally, there is the growing threat posed by irregular forces equipped with G-RAMM capabilities. The Army's leaders recognize that the Service's modernization efforts must take into account "the complex and changing operational environment where increased ballistic and cruise missiles, manned and unmanned aerial vehicles, rockets, artillery and mortars, coupled with WMD payloads are plausible for use against the homeland and from inside and outside a Joint force commander's AOR [area of responsibility]."[117] The question that immediately comes to mind here is: How will the Army defend the ground it takes? Where are the air and missile defense system that can defend against this kind of threat, *and do so at an acceptable cost*?

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[116] LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 70.

[117] Ibid., p. 37.

Army systems such as Patriot-3 (Pac-3) and the Terminal High-Altitude Area Defense[118] (THAAD) system fire interceptor missiles that far exceed the cost of the rockets and short-range missiles fired by groups like Hezbollah during the Second Lebanon War with Israel in 2006. In any event, most G-RAMM munitions do not follow flight trajectories and timelines that are conducive to their being intercepted by these systems. The only approach on the horizon that seems promising at this point in time involves active defenses enabled by solid-state laser (SSL) technology, which might not only reduce the cost per interceptor shot to tolerable levels, but also make it possible to engage multiple incoming munitions very rapidly. The Army is investing in this technology, but the Service needs to move more aggressively in this area, given the state of the threat.[119]

Combating this threat will almost certainly require a joint effort from the Services, involving hunter-killer air-ground forces designed to suppress the enemy's ability to fire such munitions, especially in salvoes, systems capable of intercepting G-RAMM munitions in flight, counter-battery fires to destroy missile launchers promptly once they have fired and revealed their location, and passive defenses (e.g., hardening of key facilities, built-in redundancies to key infrastructure, etc.) to mitigate the damage from strikes that are not intercepted.

FORCE STRUCTURE: FULL-SPECTRUM OR PRIMARY-FOCUS?

To fulfill its role as part of the joint force addressing the full range of challenges to US national security, the Army has concluded that soldiers and units must be able to adapt quickly to any threat along the conflict spectrum. This must be accomplished, they believe, if the Army is to respond with sufficient forces to meet the anticipated

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[118] This system, originally the Theater High Altitude Area Defense system, has been moved from the Army to the Defense Department's Missile Defense Agency (MDA). The THAAD missile destroys incoming missiles by colliding with them, using a kinetic or "hit-to-kill" approach, as with the Patriot-3 (although the PAC-3 also contains a small explosive warhead). Similar to the Patriot-3 anti-missile missiles, the THAAD is designed to knock out ballistic missiles in their final phase of flight, known as the terminal phase. However, as the THAAD is designed to intercept targets at higher altitudes, it can defend a larger area. The THAAD has posted a strong record of recent test successes, having intercepted thirty-five targets in forty-three attempts in the atmosphere and in space since 2001. Over the past three years, THAAD has successfully engaged twenty-nine of thirty targets. The THAAD is scheduled for initial deployment in 2009. "THAAD shoots down missile from C-17," *Air Force Times*, June 27, 2008. Accessed at http://www.airforcetimes.com/news/2008/06/ap_thaad_062608/, on September 9, 2008.

[119] There are several SSL programs under way, including the High-Energy Laser Technology Demonstrator (HEL TD) and the Joint High Power Solid-State Laser (JHPSSL). Northrop Grumman is projecting that it will be able to a demonstrate weapons-grade SSL in 2008. This would represent a big step up from chemical-powered lasers, which until recently had been the focal point of DoD research into laser systems. Chemical lasers are capable of generating powerful bursts of laser energy, but require large quantities of highly toxic chemicals, making chemical laser weapons impractical for most military tasks. Noah Shachtman, "Weapons-Grade Lasers by the End of '08?," Wired, September 02, 2008. Accessed online at http://blog.wired.com/defense/2008/09/weapons-grade-l.html, on September 10, 2008.

demand for ground combat forces. Thus the Army has decided to field a "full-spectrum force" rather than "build [a] large-scale, dedicated force structure" whose units are oriented primarily on accomplishing either conventional war or irregular war missions.[120]

Given the limits on size imposed by resource constraints and a volunteer force, the Army leadership believes it has no choice but to pursue this path.

> The Army's operational concept is *full spectrum operations:* Army forces combine offensive, defensive, and stability or civil support operations simultaneously as part of an interdependent joint force to seize, retain, and exploit the initiative, accepting prudent risk to create opportunities to achieve decisive results.[121] [Emphasis in the original]

To field an effective "full-spectrum" force, the Army needs soldiers able to operate in several highly complex, highly demanding environments. As the Army's recently released capstone field manual, 3-0, *Operations*, declares

> Future operational environments will be complex…. Soldiers can expect to deal with more complicated situations than ever before. The nature of land operations has expanded from a nearly exclusive focus on lethal combat with other armies to a complicated mixture of lethal and nonlethal actions directed at enemies, adversaries, and the local population, itself often a complicated mix…. Army forces work with and around a bewildering array of agencies and organizations—government, intergovernmental, nongovernmental, and commercial—and usually within a multinational military framework…. These and many other factors increase the complexity of operations and stress every dimension of the Army's capabilities, especially the strength and depth of Army leaders….[122]

In attempting to stretch its forces across the entire spectrum of conflict, the Army must address the significant disparity in skill sets needed for conventional warfare and various forms of irregular warfare. Not only are the skills both demanding and disparate, the time to shift from one set to the other may be very limited. As Army Field Manual 3-0, *Operations*, states

> *For maximum effectiveness, stability and civil support tasks require dedicated training, similar to training for offensive and defensive tasks.* Likewise, forces involved in protracted stability or civil support operations *require intensive training to regain proficiency in offensive or defensive tasks before engaging in large-scale combat operations.*[123] [Author's emphasis]

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[120] Department of the Army, *Stability Operations in an Era of Persistent Conflict* (Washington, DC: Department of the Army, June 1, 2008), p. 18.

[121] Field Manual 3-0, *Operations* (Washington, DC: Headquarters, Department of the Army, February 27, 2008), p. 3–1.

[122] Ibid., p. 3–6.

[123] Ibid., pp. 3–2, 3–3.

Although "intensive," "dedicated training" is required to reorient soldiers from conventional to stability operations,

> Units must be agile enough to adapt quickly and be able to shift with little effort from a focus on one portion of the spectrum of conflict to focus on another. *Change and adaptation that once required years to implement must now be recognized, communicated, and enacted far more quickly.*[124] [Author's emphasis]

While fielding a full-spectrum force may be desirable, is it a *realistic* course of action for the Army? Is it possible to field forces that can perform such disparate missions on short notice, and at a high level of effectiveness?

In short, the Army requires soldiers who can operate in increasingly complex environments, some of which are very different from one another, and to shift from one to the other within compressed time frames. This leads to an obvious question: While fielding a full-spectrum force may be desirable, is it a *realistic* course of action for the Army? Is it possible to field forces that can perform such disparate missions on short notice, and at a high level of effectiveness? In fact, there are serious concerns regarding this approach to organizing, training and equipping the future Army.

First, as Army doctrine makes clear, the skills sets required of soldiers are very diverse and very demanding, ranging from executing complex combined arms maneuver warfare as part of a joint battle network involving BCTs equipped with the Future Combat Systems, to seamlessly transitioning to operating effectively among people of alien cultures. It is a challenging undertaking to master one of these skill sets, let alone two.

Second, embedded in this approach is the major assumption that the Army can shift with sufficient speed to orient itself to address any threat along the conflict spectrum, from stability operations and irregular warfare, to conventional warfare, to operations against a nuclear-armed adversary. In particular, the Army's track record in reorienting conventional forces rapidly for irregular warfare is not encouraging. Twice in the last half-century the Army has had to adapt forces to conduct large-scale irregular warfare campaigns, first in Vietnam and more recently in Afghanistan and Iraq. In both cases, the Army required at least three years to adapt its "general-purpose" forces to this kind of warfare. What evidence is there that "full-spectrum forces"—the term seems a euphemism for "general-purpose forces"—will be able to make an even greater shift from conventional to irregular warfare?

Third, making matters even dicier, the Army may not be able to rely upon its partners in the Interagency to provide the capabilities they are responsible for as part of the "whole of government" solution to the challenges posed by stability operations. Should the Interagency fail to meet its obligations:

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[124]   Ibid., p. 1–20.

The Army must be prepared to perform mission critical stability operations tasks if other mission partners cannot. Moreover, the Army must be capable of establishing conditions conducive to building functional institutions across a society. By implication, the capability to execute all five stability operations tasks must be inherent, in some degree, in the forces the Army provides to a combatant command.[125]

To paraphrase former Army chief of staff, General (Ret.) Gordon Sullivan, hope is not a strategy.[126] Yet the Army does appear to be relying heavily on the hope that its partners in the State Department, the US Agency for International Development, and the intelligence community do their part, despite their inability in many instances to execute their responsibilities, even after seven years of persistent irregular conflict.

Fourth, and perhaps most important, the Army is attempting to create the full-spectrum force, with the unprecedented demands it places on soldiers, at the very time it is experiencing a serious and steady erosion in the quality of the force, in both the officer and NCO corps, and in recruiting standards.

A Conventional Tilt in an Era of Persistent Irregular Conflict

In posturing itself for full-spectrum operations, the Army appears to have placed its institutional center of gravity squarely in the area of conventional warfare. This is true both for the Army's core modernization program, the Future Combat Systems, and its force structure. Recall that, although it will be "capable" of conducting other kinds of operations, the Future Combat Systems is "optimized" for conventional warfare.[127]

The Army's force structure also appears to be far more oriented on conventional operations than seems warranted. The Modular Force calls for the Active Army to field eighteen Heavy Brigade Combat Teams (HBCTs) and one Armored Cavalry Regiment, for a total of nineteen HBCTs, and twenty-three Infantry Combat Teams (IBCTs), along with six Stryker BCTs (SBCTs), for a total of forty-eight BCTs. Thus roughly 40 percent of the Active Component will comprise heavy brigades. However, the National

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[125] Department of the Army, *Stability Operations in an Era of Persistent Conflict* (Washington, DC: Department of the Army, June 1, 2008), pp. 3, 11. The five stability operations tasks are to establish civil security, establish civil control, restore essential services, provide support to governance, and provide support to economic and infrastructure development. FM 3-07, Stability Operations, reinforces the point, noting that while "generally the responsibility for providing for the basic needs of the people rests with the host-nation government of designated civil authorities, agencies, and organizations . . . [w]hen this is not possible, military forces provide essential services to the populace until a civil authority or the host nation can provide these services." Department of the Army, Field Manual 3-07, *Stability Operations* (Washington, DC: Department of the Army, October 6, 2008), p. 2–2.

[126] The general's observation that "Hope is not a method" has been modified by many, including Senator Hillary Clinton, to "hope is not a strategy." See Captain James G. Alden, "Eyes Wide Shut," Armed Forces Journal, accessed at http://www.afji.com/2007/03/2392217 on September 1, 2008; and Brigadier General (ret.) Kevin Ryan, "Hope is a Strategy," *Orlando Sentinel, December 21, 2006.*

[127] "Although optimized for offensive operations, the FCS BCT will be capable of executing full-spectrum operations." LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 69.

Guard (i.e., the Reserve Component) will have seven HBCTs, twenty IBCTs, and one SBCT. Only 25 percent of the National Guard's BCTs will be heavy formations.

The BCT force structure raises several interesting issues. For one, the Reserve Component is weighted far more heavily than the Active Component toward lighter forces. As stability operations and counterinsurgency operations are typically conducted by lighter formations, it would appear that, relative to the Reserves, the Active Army is far more heavily weighted toward conventional warfare. This seems odd at a time when the Army finds itself in an era of persistent irregular warfare, in which it is struggling to sustain forces in the field. The Service's AC brigades can be rotated much more frequently (as frequently as one third of the time, according to Army plans) than RC brigades (only as often as one sixth of the time). Why weight the number of BCTs best suited for irregular warfare in the RC, especially given that the wars in both Afghanistan and Iraq are likely to be protracted, and myriad other mid- to large-scale irregular warfare contingencies (e.g., a destabilized Nigeria and/or Pakistan) are highly probable?

Perhaps the Army sees maintaining a "conventional heavy" Active Component as necessary in the event of a major regional war, perhaps involving North Korea or Iran, in which the Army will need to deploy HBCTs with little warning. Since it takes several months at least for National Guard brigades to prepare for combat, this would seem to make sense. However, upon examining these two contingencies, the case for maintaining nineteen Active Component HBCTs seems hard to defend, especially given current and likely prospective contingencies.

Take the case of North Korea. The principal threat here is from Pyongyang's ballistic missile forces, potentially armed with nuclear or chemical warheads; its special operations forces infiltrating into the South, armed with chemical or biological agents; and its thousands of artillery pieces tucked away in mountain caves just beyond the demilitarized zone.

> **The case for maintaining nineteen Active Component HBCTs seems hard to defend, especially given current and likely prospective contingencies.**

TABLE 1. **THE MODULAR FORCE BRIGADE COMBAT TEAMS (FY 2013)**

	HBCTs	IBCTs	SBCTs
Active Component	19	23	6
Reserve Component	7	20	1
Total	26	43	7

Source: Department of the Army

It is also very unlikely that South Korea will confront a North Korean combined arms mechanized force conducting offensive operations. The North Korean Army has antiquated equipment that is not in good repair. It suffers from a lack of adequate logistics support to mount a sustained ground offensive campaign. Should Pyongyang decide to launch a ground offensive despite these shortcomings, US air power can visit the same destruction on advancing North Korean mechanized forces as it has in other recent conflicts, such as the Balkans, Afghanistan, and in the Second Gulf War. The terrain separating the two countries — generally mountainous with both flanks anchored on the sea — provides few avenues of advance for a mechanized ground offensive, making the defender's job all the easier.

Moreover, as South Korea has over twice the population of the North and an economy many times as large, it seems reasonable to conclude that Seoul can provide ground forces for its own defense. Since it would likely take several months to transport even a sizeable fraction of the Army's nineteen HBCTs to South Korea in the event of a conflict, having the South Koreans assume responsibility for ground forces makes even more sense. Indeed, the US military's greatest comparative advantage in this contingency is its maritime and aerospace forces.

As for Iran, the threat is not that the Army will confront a better version of Iraq's Republican Guard. Rather, it is that Iran will rely on a small nuclear arsenal, the kind of "hybrid warfare" pursued by Hezbollah in the Second Lebanon War, and low-end anti-access/area-denial capabilities to make the Persian Gulf a killing zone and access to nearby forward bases a risky proposition. As noted earlier in this report, if Iran's A2/AD forces can be taken down, the Army may be able to deploy significant forces into the combat zone at an acceptable level of risk. However, it seems very unlikely they will confront an Iranian Army conducting conventional, combined-arms operations. Given these operations' spectacular lack of effectiveness in the two Gulf Wars, and the relative effectiveness of irregular forces in Iraq and during the Second Lebanon War, it would appear that Army forces would be confronted with an Iranian Army waging irregular warfare.

Should the Army confront an enemy willing to engage in conventional war, or "open battle," nineteen HBCTs would likely prove far more than needed for the task, especially given the US military's advantage in air power. Since 1991, enemy ground forces massing against the US military have been utterly devastated, whether it be during the First Gulf War, the 1999 Balkan War, the initial campaign in Afghanistan to topple the Taliban Regime, or the Second Gulf War. As long as the US military maintains control of the air, enemy ground forces attempting to mass have been devastated. Thus in the Balkan War the Serbian forces were defeated without the Army's direct involvement. In Afghanistan, US Special Operations Forces, working with indigenous Afghan tribes, were able to unseat the Taliban regime, again without deploying a single BCT. In the Second Gulf War, the Army's 3rd Infantry Division (Mechanized), with

Should the Army confront an enemy willing to engage in conventional war, or "open battle," nineteen HBCTs would likely prove far more than needed for the task, especially given the US military's advantage in air power.

its three heavy brigades, proved sufficient to defeat the Iraqi Army.[128] If one includes the heavy brigades provided by US Marine and British units during the major combat operations phase of the conflict, the total rises to nine, or less than half the HBCTs the Army proposes to maintain in its active force structure.

Stability Operations: Once Again, a "Lesser Included Case?"

While the FCS is "optimized" for conventional operations, and while the Army, in the interim, plans to field an Active Component that arguably is overly weighted toward conventional operations — given likely contingencies — the Service has also decided against fielding BCTs oriented on irregular warfare missions such as stability operations, counterinsurgency, and foreign internal defense. To be sure, there is agreement among the Army leadership that "The institutional Army faces a critical shortcoming in its ability to resource and prepare forces for stability operations tasks."[129] To address this shortcoming, the Army plans to designate some BCTs in the force generation cycle as Security Cooperation BCTs (SC BCTs) with the mission of focusing on Phase 0 stability operations.[130] These units will undergo limited training to become proficient in "the culture and institutions for the region within which they will operate."[131]

Each BCT has a core mission essential task list — or CMETL — that it must always be able to execute. Brigades can also be assigned a directed mission-essential task list, or DMETL, such as those associated with stability operations. The Army hopes to provide a BCT with its DMETL roughly twelve to eighteen months before it deploys. Based on the stability operations mission involved, this could lead to modifications in the BCT's organization and equipment in the process of creating a SC BCT.[132]

But will every BCT designated for deployment as an SC BCT have twelve to eighteen months to prepare? Could the Army count on such warning in the event of a collapse of a government in a country of strategic significance to the United States, such as Nigeria or Pakistan? Would the Army have over a year's warning of a pending conflict with Iran in which regime change operations would very likely leave the Army

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[128]   Britain's 1st Armoured Division, comprised of three heavy brigades, also participated in the war, as did the US Marine Corps' 1st Division, which includes three heavy regiments.

[129]   Department of the Army, *Stability Operations in an Era of Persistent Conflict* (Washington, DC: Department of the Army, June 1, 2008), p. 23.

[130]   An SC BCT "will tailor its combat support and combat service support functions for the environment in which it will operate." This may include training and deploying as force packages below the BCT level. Department of the Army, *Stability Operations in an Era of Persistent Conflict* (Washington, DC: Department of the Army, Predecisional Draft), pp. 17–18.

[131]   The Army has directed that "in order to prepare for operations across the GCCs [Geographic Combatant Commands], SC BCTs will be regionally allocated to ensure appropriate training focus…. "Department of the Army, *Stability Operations in an Era of Persistent Conflict* (Washington, DC: Department of the Army, June 1, 2008), p. 22.

[132]   Department of Defense, "Bloggers Roundtable," LTG William Caldwell, Teleconference Subject: US Army Field Manual 3-0, Operations, February 26, 2008.

with a large-scale stability operations mission after the end of major combat operations? Again, history does not offer much comfort here.

Indeed, Army doctrine acknowledges the importance of units being able to shift focus quickly.

> No longer can responses to hostile asymmetric approaches be measured in months. Solutions must be fielded across the force in weeks — and then be adapted frequently and innovatively as the enemy adapts to counter the new-found advantages."[133]

Field Manual 3-07, *Stability Operations*, emphasizes the point in declaring

> The malleable situation following in the wake of conflict, disaster, or internal strife provides the force with the greatest opportunity to seize, retain, and exploit the initiative. By quickly dictating the terms of action and driving positive change in the environment, military forces improve the security situation and create opportunities for civilian agencies and organizations to contribute. Immediate action to stabilize the situation and provide for the immediate humanitarian needs of the people begins the processes that lead to a lasting peace. Failing to act quickly may create a breeding ground for dissent and possible recruiting opportunities for enemies or adversaries.[134]

In his book, *Losing the Golden Hour*, former USAID Mission Director James Stephenson reinforces this point. The "golden hour" referred to by Stephenson is the brief period of time after the introduction of US troops "in which we enjoy the forbearance of the host-nation populace. The military instrument, with its unique expeditionary capabilities, is the sole US agency with the ability to affect the golden hour *before* the hourglass tips"[135] and the local populace becomes disaffected.[136] An Army called upon to surge BCTs to exploit the golden hour is not likely to have a year or more to prepare them.

Even more worrisome, those BCTs designated for security cooperation missions — the SC BCTs — will only be modified temporarily for this mission. The Army has decided that

> Barring contingencies, these allocations need only endure for the ARFORGEN cycle. As part of the global force pool, BCTs will not permanently align with any one region.[137]

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[133] Field Manual 3-0, *Operations* (Washington, DC: Headquarters, Department of the Army, February 27, 2008), p. 1–20.

[134] Department of the Army, Field Manual 3-07, *Stability Operations* (Washington, DC: Department of the Army, October 6, 2008), p. 2–3.

[135] James Stephenson, *Losing the Golden Hour*, (Washington, DC: Potomac Press, 2007), p. 98.

[136] LTG William B. Caldwell IV, and Lieutenant Colonel Steven M. Leonard, "Field Manual 3-07, Stability Operations: Upshifting the Engine of Change," *Military Review*, July-August 2008, p. 11.

[137] Department of the Army, *Stability Operations in an Era of Persistent Conflict* (Washington, DC: Department of the Army, June 1, 2008), p. 22.

Once the BCT rotates through its assignment as an SC BCT, whatever proficiency it develops in stability operations will be dissipated. The Army intends that a brigade deployed as an SC BCT "will not be designated as a SC BCT for the next ARFORGEN cycle."[138]

In summary, even though stability operations "will be more leader intensive, requiring different training and skills" from those of conventional warfare, and even though the Army views stability operations as reflective of "endemic problems [that] require long-term, continuous solutions that are not episodic engagements," the Service has decided to forego maintaining a force with a high skill level in these operations.[139] If the demand for such forces were low, or episodic, or if the warning times allowed for a thorough reorientation of general-purpose forces for the stability operations missions, this approach might have merit. However, this is not the case. The demand signal for these forces is high. The Army finds that

> If there were more Army forces available, the combatant commands would likely request more forces to participate in steady-state shaping activities. These unrequested forces constitute a "suppressed demand signal."[140]

Moreover, in an era of persistent irregular conflict, the demand signal for Army forces proficient in stability operations is likely to remain persistent.

Training and Advising

The Army's aversion to institutionalizing its hard-won skills in irregular warfare, and in stability operations in particular, threatens to extend into the area of training and advising. The Defense Department's leadership has concluded the US armed forces, and the ground forces in particular, are not large enough to address the full range of plausible contingencies on their own. Consequently, it has made "building partner capacity" a key part of its strategy for meeting its global commitments. The idea is to organize, train and equip the forces of states threatened with aggression, especially forms of irregular warfare, in order to increase the forces that can be brought to bear to accomplish the mission. This is especially important in matters of internal security, which are typically best handled by indigenous forces.

Reflecting this priority, the chairman of the Joint Chiefs of Staff, Admiral Michael Mullen, has declared that stepping up the US advisory efforts in Afghanistan and Iraq is "the way out, no question, in both countries." He went on to say "I can't overstate the importance" of the American advisory teams.[141] While these teams represent the way

The idea is to organize, train and equip the forces of states threatened with aggression, especially forms of irregular warfare, in order to increase the forces that can be brought to bear to accomplish the mission.

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[138] Ibid., p. 32.

[139] Ibid., pp. 5–6.

[140] Ibid., p. 10.

[141] Ann Scott Tyson, "Military Training Units Seen as Career Detours," *Washington Post*, October 25, 2007, p. A2.

out for Army combat units, their departure will likely be succeeded by the protracted commitment of substantial numbers of advisors.

The need for a substantial Army capability to build partner capacity, both in terms of training and advising, also stems from a realization that, beyond the current high demand signal for this capability

> The scope and scale of training programs today and the scale of programs likely to be required in the future has grown exponentially. While FID[142] has been traditionally the primary responsibility of the special operating force (SOF), training foreign forces is now a core competency of regular and reserve units of all Services.[143]

Like many other aspects of stability operations, organizing, training and equipping host-nation security forces is a complex and challenging mission; building partner capacity is typically a slow and painstaking process.[144] The effort extends beyond military training teams (MTTs) that conduct security force assistance. It encompasses police training teams and civil affairs functional area specialists working to reform the host nation's entire security sector.[145] It might also include provincial reconstruction teams (PRTs) engaged in building capacity in governance and in the economic sector.

The Army Security Assistance Training Management Organization's (SATMO) has a key role in supporting the Service's efforts to build partner capacity and conduct stability operations. SATMO's mission is to plan, form, prepare, deploy, sustain and redeploy continental United States (CONUS)-based Security Assistance Teams that provide technical assistance, training services, mobile training teams, and pre-deployment site surveys. In FY 2007, sixty-five teams were deployed to thirty-nine countries. While the Army notes that this effort involved "more than 80,000 work-days overseas," this represents only 219 man-years.[146]

The Army, however, has decided against substantially increasing its training and advising capacity, citing a lack of manpower. The Army's chief of staff, General George Casey has declared

Like many other aspects of stability operations, organizing, training and equipping host-nation security forces is a complex and challenging mission; building partner capacity is typically a slow and painstaking process.

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[142] FID, or foreign internal defense, is defined as "Participation by civilian and military agencies of a government in any of the action programs taken by another government or other designated organization to free and protect its society from subversion, lawlessness, and insurgency." Joint Chiefs of Staff, (JCS) Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, April 12, 2001, as amended through May 30, 2008, p. 281.

[143] Department of the Army, Field Manual 3-24, *Counterinsurgency*, December 2006, p. 6–3.

[144] Ibid., pp. 6–4, 6–6.

[145] LTG William B. Caldwell IV, and Lieutenant Colonel Steven M. Leonard, "Field Manual 3-07, Stability Operations: Upshifting the Engine of Change," *Military Review*, July–August 2008, p. 12.

[146] Department of the Army, Field Manual (FM) 1-01, *Generating Force Support for Operations*, April 2, 2008; and SATMO Command Brief, 2008. Cited in Department of the Army, *Stability Operations in an Era of Persistent Conflict* (Washington, DC: Department of the Army, Predecisional Draft), p. 11.

I'm just not convinced that anytime in the near future we're going to decide to build someone else's army from the ground up. And to me, the 'advisory corps' is our Army Special Forces — that's what they do.[147]

The general's views are echoed in the Service's recently released statement on its role in stability operations, which states

It is not in the military's best interest to establish a permanent "Training Corps"[148] in the conventional military to develop other countries' indigenous security forces. The Special Forces do this mission well on the scale that is normally required for theater security co-operation and other routine foreign internal defense (FID) missions. Rather, we should insure our conventional forces have the inherent flexibility to transition to this mission when it becomes too large for the Special Forces.[149]

Even with the planned increase in the Army's Special Forces, they are not sufficiently large to conduct the full range of operations required of them and engage in the large-scale training of foreign militaries.

This line of argument is less than persuasive. First, given the strong "demand signal" from the COCOMs for advisor support, and the growing role that building up the capacity of indigenous and other partner's forces has attained in the overall US strategy for addressing the era of persistent irregular warfare, it appears the Army will likely have a long-term requirement to provide significant numbers of trainers and advisors. Hence the need to maintain a significant capability within the Army for this mission seems appropriate. However, even with the planned increase in the Army's Special Forces, they are not sufficiently large to conduct the full range of operations required of them and engage in the large-scale training of foreign militaries.

Second, the Army's plans to draw upon its BCTs for officers and NCOs to serve as advisors are a classic case of "robbing Peter to pay Paul." In an Army already weakened by a decline in the quality of its officer and NCO cohorts, it makes little sense to dilute the leadership of deployed BCTs to generate advisors. Despite assertions to the contrary, it also seems unlikely that BCT commanders will release their best officers and NCOs to fill the role of advisors and trainers.

Furthermore, the Army's best officers and NCOs are unlikely to view assignments as advisors and trainers as career-enhancing. While Admiral Mullen believes that "Individuals have to see this as meaningful in their career, and that the Services have to recognize this and start promoting" those serving as advisors, assignment as an advisor is generally seen as detrimental to one's career.[150] A widely circulated email written by an officer who worked with military trainers in Afghanistan begins: "You

147 Yochi J. Dreazen, "Training: Mission Unaccomplished," *Wall Street Journal*, February 29, 2008, p. A4.

148 The most ardent proponent of a Training, or Advisory, Corps is LTC (Ret.) John Nagl. See John A. Nagl, "Institutionalizing Adaptation: It's Time for an Army Advisor Command," *Military Review*, September–October 2008, pp. 21–26. See also Major Michael D. Jason, "Integrating the Advisory Effort in the Army: A Full-Spectrum Solution," *Military Review*, September–October 2008, pp. 27–32.

149 Department of the Army, *Stability Operations in an Era of Persistent Conflict* (Washington, DC: Department of the Army, June 1, 2008), p. 18.

150 Tyson, "Military Training Units Seen as Career Detours," p. A2.

have a pulse and have not been selected for command. Congratulations on your assignment!" The message goes on to state that "the Army has told you that this assignment won't hurt your career…[and] you have been told the truth," as long as you do not hope for further promotion.[151]

Recognizing the problem, Army chief of staff General George Casey is seeking to make advisory duty more attractive. He notes "Soldiers that serve on our Transition Teams (TTs) and our Provincial Reconstruction Teams (PRTs) are developing exactly the type of knowledge, skills and abilities that are vital for our Army to be effective in an era of persistent conflict."[152] To ensure these skills are retained and that officers are incentivized to seek assignments as advisors, General Casey has directed that majors and lieutenant colonels serving on these teams "be given the credit they deserve" in the form of career-enhancing future assignments and in consideration for promotion. This represents a significant effort on the Army's part to change officers' perceptions of serving in training and advisory assignments. If history is any guide, however, it will take time and persistent attention to this issue by the Army leadership to attract and retain quality officers for these assignments.[153]

Third, the Army may be underestimating the amount of time needed for its officers and NCOs to be trained to serve effectively as advisors. As one officer notes

> Perhaps the most-often overlooked aspect is that advisers must possess knowledge beyond that of normal soldiers in order to be effective. An adviser must possess a mastery of the tactical skills that would enable him to know what to do in the given situation (much the same as his conventional counterpart), but he must also possess the skills needed to impart his advice to a foreign counterpart effectively in order to achieve a desired effect.[154]

In fact, a study by the Rand Corporation finds that "In the past the U.S. military has failed to comprehend the amount of experience and specialized area, language,

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[151] Dreazen, "Training: Mission Unaccomplished," p. A4.

[152] GOMO, "CSA Sends—Transition Team Commanders (UNCLASSIFIED)," June 17, 2008, accessed at Small Wars Journal at http://smallwarsjournal.com/blog/2008/06/big-thumbs-up-to-general-casey/, on October 4, 2008.

[153] During the Vietnam War, General William Westmoreland, then the Army chief of staff, instituted a series of incentives to increase the attractiveness of advisor duty. Despite his best efforts, the Army failed to institutionalize the new incentive structure and advisor service continued to be viewed as less desirable than serving in a line Army maneuver unit (e.g. battalion, brigade). See Peter M. Dawkins, "The United States Army and the 'Other War' in Vietnam: A Study of the Complexity of Implementing Organizational Change," Doctoral Dissertation, Princeton University, 1979, pp. 71–79. See also Andrew F. Krepinevich, *The Army and Vietnam* (Baltimore, MD: The Johns Hopkins University Press, 1986), pp. 207–10.

[154] LTC Mark Grdovic, "The Advisory Challenge," *Special Warfare*, January–February 2008, p. 23.

and military expertise needed for effective advisory and training missions in the third world."[155]

In September 2007, a team of Army officers evaluating the advisor training program concluded that the wrong soldiers were being chosen for advisor training, and that their training was poor, "seriously undermining the effectiveness" of the overall training mission, and "fundamentally detracting from the US strategy for transition in Iraq." The evaluation noted that while senior Army commanders want at least one third of the instructors training advisors to have advisor experience, only 6 percent did as of October 2007.[156] Even the advisory teams' organization is inconsistent. In Afghanistan, these teams comprise sixteen soldiers and no medic, while in Iraq the teams have eleven soldiers and a medic.[157]

This is made all the more worrisome given that the Army has yet to institutionalize a way to generate sufficient numbers of quality advisors.

> The Army lacks a core competency for GPF [general purpose forces] to train foreign security forces or conduct combat advising. Though we have been executing these missions for several years, the permanent institutions and a complete approach across DOTMLPF[158] is [*sic*] lacking. . . The Army lacks an intellectual center or 'institutional backbone' for stability operations. While there are many centers of excellence and other institutional activities that support stability operations, there is no unifying organization.[159]

The Army is also handicapped by the lack of a standing organization for training host-nation forces, and a lack of equipment stocks with which to outfit them. Given the prospect of having to deploy on short notice and the importance of preventive action and exploiting the opportunities presented by the "golden hour," these capabilities must be immediately available to the combatant commands, and not cobbled

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[155] Stephen T. Hosmer, *The Army's Role in Counterinsurgency and Insurgency* (Santa Monica, Calif.: RAND, 1990), p. 18.

[156] Dreazen, "Training: Mission Unaccomplished," p. A4.

[157] LTC John A. Nagl, "Institutionalizing Adaptation: It's Time for a Permanent Advisory Corps," *Center for a New American Security*, June 2007, p. 5.

[158] The term DOTMLPF stands for "Doctrine, Organization, Training, Materiel, Leadership, Personnel and Facilities."

[159] Department of the Army, *Stability Operations in an Era of Persistent Conflict* (Washington, DC: Department of the Army, June 1, 2008), p. 15.

together on the fly. Equipment stocks to outfit host-nation forces being trained should be stockpiled, similarly to the POMCUS equipment that was positioned to support US forces during the Cold War.[160]

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[160] The term "POMCUS" stands for Prepositioning of Materiel Configured in Unit Sets. During the Cold War large quantities of equipment were prepositioned in Europe to facilitate the rapid reinforcement of US forces there. By having a unit's equipment prepositioned, and thus not having to transport it from the United States, the Army's airlift and sealift requirements were greatly reduced. The Army eventually prepositioned roughly four divisions' (or twelve brigades') worth of equipment in Western Europe. Colonel (Ret.) Gregory Fontenot, LTC E. J. Degen, and LTC David Tohn, *On Point: The United States Army in Operation Iraqi Freedom*, p. 40, accessed at http://books.google.com/books?id= 7x8U4t-oJvcC&pg=PA40&lpg=PA40&dq=POMCUS+Cold+War&source=web&ots=ERAs40Gn80&sig= f3YuMfJ4OujYdk2gRJFAPmgfqbg&hl=en&sa=X&oi=book_result&resnum=10&ct=result#PPR16,M1, on September 29, 2008.
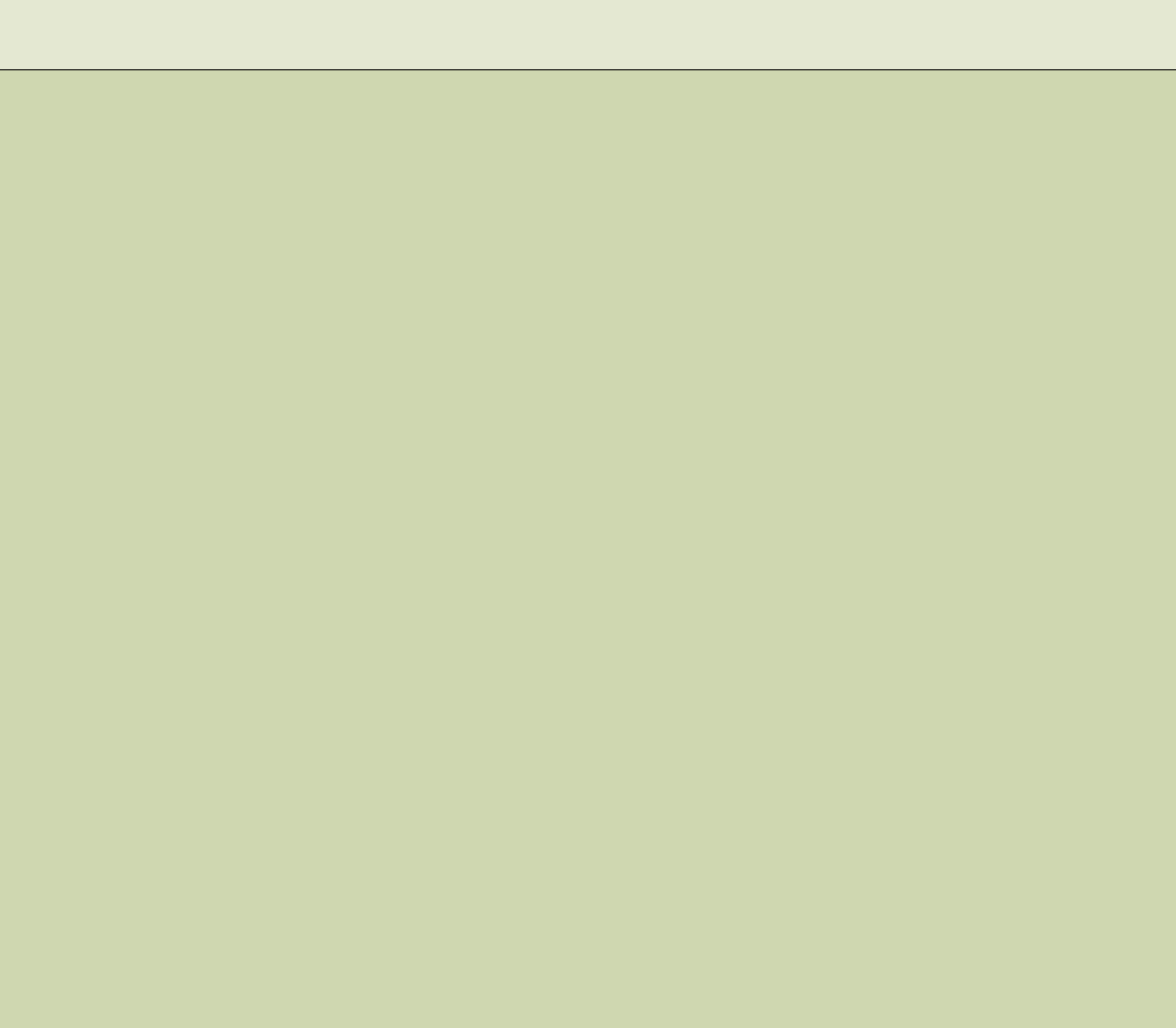
CHAPTER 3 > **SUMMARY AND RECOMMENDATIONS**

> Four decades after Westmoreland's departure from MACV, military and civilian leaders were relearning the same lessons he had ignored at the height of the Vietnam War.[161]
> — LTG William Caldwell IV and LTC Steven M. Leonard

The three challenges confronting the US military today—the war against Islamist terrorist elements, the prospect of nuclear-armed rogue states, and the potential rise of China as a military rival—differ greatly from those confronted during the Cold War era. Nor do they resemble the threats planned for in the immediate post-Cold War era: minor powers like Iran, Iraq and North Korea that lacked weapons of mass destruction and were assumed to present challenges not all that different from Iraq during the First Gulf War. Hence the focus on waging two such conflicts in overlapping time frames that animated the Defense Department's two major regional conflict posture sustained until the 9/11 attacks.[162]

For the Army, these new challenges all suggest the onset of an era of persistent, irregular conflict. The conflicts in Afghanistan and Iraq show no signs of ending soon; nor does the war against Islamist terrorist groups operating on a global scale. Moreover, the rising youth bulge in Africa, the Middle East, Central and South Asia, and in parts of Latin America promises to increase instability. As unprecedented numbers of young people in these parts of the world come of age, they will find themselves competing in a global economy in which they are hampered by a lack of education and

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[161] LTG William B. Caldwell IV, and Lieutenant Colonel Steven M. Leonard, "Field Manual 3-07, Stability Operations: Upshifting the Engine of Change," *Military Review*, July–August 2008, p. 9.

[162] The two major regional conflict (MRC) posture was succeeded by the two major theater war (MTW) and major combat operations (MCO) postures, which essentially represented variations on the same theme: regional wars against minor powers in the Persian Gulf and Northeast Asia. The US force posture did not begin to change significantly until after the 9/11 attacks and the onset of the wars in Afghanistan and Iraq.

burdened by corrupt and incompetent governments. The communications revolution will enable radical groups to access large numbers of these young adults. Even if they succeed in winning over only a small percentage, they will have recruited millions. As al Qaeda and Hezbollah have shown, thanks to the spread of destructive technologies, even small groups can create widespread disorder.

It does not end there. Should minor powers hostile to the United States, such as Iran, acquire nuclear weapons, it will likely enable them to take greater risks in backing groups pursuing ambiguous forms of aggression. In Iran's case, this could lead to greater support for radical groups like Hamas, Hezbollah, and the Mahdi Army. If the United States is unable to convince China to abandon its attempts to exclude the US military from East Asia and to threaten America's access to the global commons, the competition could spill over into irregular proxy wars in the Third World. China could pursue this path both in an attempt to tie the United States down in costly, protracted conflicts, and to position itself for what is shaping up as a competition for access to increasingly scarce raw materials, should the global market for them break down.

Given the advent of an era of persistent irregular conflict, with its emphasis on manpower-intensive operations on land, the Army is destined to play a central role in US defense strategy. The Service will need to build on its hard-won expertise in conducting these kinds of operations, whether they go by the name of stability operations, foreign internal defense, internal defense and development, stability, security, transition and reconstruction operations, counterinsurgency, or irregular warfare.[163]

The Defense Department is pursuing an indirect strategy with regard to the challenges posed by irregular warfare. This is desirable, both as a means of avoiding having US forces tied down in protracted conflicts, and because internal threats are typically best handled by indigenous forces. It is also necessary, as the US military simply lacks the capability to impose stability on the scale that might be required. Consider that the Army is overstretched in Afghanistan and Iraq, countries whose combined populations are under 60 million. Yet countries of concern, like Iran (70 million), Nigeria (150 million) and Pakistan (165 million) have far greater populations. Hence the need to emphasize "building partner capacity" in those friendly countries threatened by instability, and in allied countries.

Of course the best strategy is to build partner capacity and engage in other preventive measures *before* a friendly country is at risk. The Army must be prepared to engage in substantial steady-state peacetime training and advising of indigenous security forces, when requested by the host nation. These efforts should be undertaken on a scale appropriate to the situation, and within the host nation's "comfort level." In an era of persistent irregular conflict, the Army will need to conduct persistent training

> **The Army must be prepared to engage in substantial steady-state peacetime training and advising of indigenous security forces, when requested by the host nation.**

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[163] While the US armed forces appear to have little need to segment conventional warfare into discrete types, the same cannot be said of warfare at the lower end of the conflict spectrum. In addition to the various "flavors" of this form of warfare mentioned above, one might add peacekeeeping and peace enforcement operations, operations other than war (OOTW), among others.

and advising operations, much as maritime forces over the years have conducted peacetime forward-presence operations as a means of maintaining stability by reassuring partners and demonstrating resolve to rivals.

In the event preventive measures fail, the Army must have the ability to build partner capacity rapidly, to create an indigenous/allied "surge" capability that can begin to restore stability to the threatened area. In circumstances where US vital interests are at stake, the Army must also be able to surge its own forces into the gap while partner capacity is being created. The effort to build partner capacity will typically find the Special Operations Forces in the lead. However, given their relatively small size, the large demands placed on them as a consequence of the protracted war against Islamist terrorist groups, and the prospective scale of the contingencies involved, the Army and its sister Services must be prepared to conduct training and advising of host-nation militaries and, where necessary, allied and partner militaries. If the Army's partners in the US Government's interagency element — e.g., the State Department, Intelligence Community, USAID — prove unable to meet their obligations as partners in restoring stability, the Army must also be prepared to engage in operations to help restore the threatened state's governance, infrastructure, and the rule of law.

Consequently, the Army must maintain a significant standing training and advisory capability that can be deployed on short notice, when necessary. This capability can reside within the institutional Army, in the form of officers and NCOs assigned to Army schools as instructors or students; at Army headquarters (e.g., the Training and Doctrine Command); or as staff, faculty and students at a school where instruction is given on how to serve as a trainer or advisor. Rather than stripping existing BCTs of their officers and NCOs to support the training and advisory mission, and eroding their effectiveness, the institutional Army can provide a surge capability while the Service leverages its existing school-house facilities to generate additional trainers and advisors.

Since the Army may need to fill gaps in the US interagency effort to restore governance and enable economic reconstruction and sustained growth, it must remain capable of responding quickly as part of any surge effort. Given this requirement, the Army should strongly consider maintaining the ability to field, on short notice, Civil Operations, Reconstruction and Development Support (CORDS) groups capable of providing advice, mentoring, and support to the host nation's non-security institutions (including its civil administration and its legal, economic, and healthcare sectors). CORDS groups will create parallel advisory offices to host-nation ministries at the national, regional, provincial, and (on a rotating basis) local levels. They should be capable of immediately undertaking quick impact projects upon deployment, developing annual plans for civil operations, reconstruction, and economic development, and engaging in longer-term capacity building efforts. CORDS groups would vary in size depending on the circumstances, but they should include military personnel, civilians made available from the interagency, and expert personal services contractors.

> In the event preventive measures fail, the Army must have the ability to build partner capacity rapidly, to create an indigenous/allied "surge" capability that can begin to restore stability to the threatened area.

A similar requirement exists for an Army "surge" capability for stability operations in the form of SC BCTs, which can also serve as the Army's Phase 0 forward-presence forces, designed to keep weak states from becoming ungoverned states. The SC BCTs, while similar to IBCTs in many respects, would have one artillery battery instead of two in their fires battalion. SC BCTs would have an augmented Special Troops Battalion. The military intelligence company would be increased in size and accord greater emphasis on human intelligence and expertise in operating on complex human terrain. The military police contingent would increase from one company to two. Strong consideration should be given to increasing the battalion's engineer component, and to embedding civil affairs and psychological operations units. If necessary, the SC BCT could also be augmented with quick-reaction-force squadrons, weapons of mass destruction (WMD) rapid-response forces, military advisory teams, and air and missile defense units. Soldiers serving in SC BCTs would also be expected to spend most of their careers in these brigades, although they should serve at least one and perhaps several tours in other units (e.g., IBCTs, HBCTs, Airborne, Air Assault, SOF) should they need to support a surge at the high end of the conflict spectrum as a follow-on force behind the HBCTs.

> **The Army also needs to maintain a dominant capability for high-end conventional warfare, of which the most demanding form is likely to be major combat operations whose objective is to effect regime change of a minor nuclear power.**

The Army also needs to maintain a dominant capability for high-end conventional warfare, of which the most demanding form is likely to be major combat operations whose objective is to effect regime change of a minor nuclear power. The Army also must preserve its dominant position in this form of warfare to dissuade rivals from contemplating threatening US security interests by employing conventional forces. To be sure, modern conventional operations are inherently joint, and US dominance in the realm of air power provides the Army with a priceless advantage in conducting conventional operations on land. While these factors may enable the Army to take more risk in the area of conventional capabilities, it does not obviate the need to sustain the Service's dominant position. The focal point of this effort should be creating a combined-arms battle network land force linked to the US military's overarching battle network that enables effective joint power-projection operations against a minor nuclear rogue state with a substantial A2/AD capability. This is likely to be the Army's most demanding contingency at the higher end of the conflict spectrum.

The Army must also meet its obligations to defend the US homeland. Most of the skills and capabilities required to support this mission are also required to conduct the two basic missions described above. Stability operations involve Army units engaged in providing population security, securing key infrastructure, enabling reconstruction, restoring governance, and numerous other tasks associated with defending the homeland and supporting post-attack recovery. The same can be said of Army capabilities at the other end of the conflict spectrum, which may involve defense against WMD attack, damage limitation in the event of an attack, and consequence management following an attack. The same can be said of the skill sets and capabilities required to deal with the so-called hybrid threat described earlier in this report.

These disparate missions argue for an Army that can operate effectively across the entire conflict spectrum. However, because the range of missions is so broad, and the skill sets required sufficiently different, attempting to field forces that can move quickly and seemlessly from stability operations to high-intensity conflict appears destined to produce an Army that is barely a "jack-of-all-trades," and clearly a master of none. This approach becomes all the more problematic when one considers the on-going erosion of quality in the officer and NCO corps, and in the Service's recruiting standards.

The Army has understandably felt compelled to pursue the "full-spectrum" approach owing to the need to cover a range of missions within the limitations on its size imposed by fiscal constraints and its all-volunteer character. Yet even if this approach were viable, the Army remains too small for larger irregular warfare contingencies, let alone those that occur simultaneously.

Fortunately, the authors of the US defense strategy have wisely chosen to address the gap between the scale of the challenges confronting the nation and the forces available to address them by focusing on building up the military capabilities of threatened states, and of America's allies and partners. The Army must give greater attention to supporting this strategy, especially with regard to stability operations, as the best means of addressing the challenge of preparing to conduct operations at high levels of effectiveness across the conflict spectrum.

The Army has specialized forces. It will need more.

The Service has for decades fielded forces specialized for airborne operations and air assault operations. Of course, the Army also has its Special Forces, expert in a range of irregular warfare operations. It has forces specially designed for high-end warfare, and plans to continue in this vein with the FCS BCTs, which the Army properly recognized are "optimized" for conventional warfare. These kinds of forces are designed to surge on short notice to address conventional contingencies. While it was once argued that such "general-purpose" forces could readily shift gears to handle contingencies at the lower end of the conflict spectrum, the evidence of Vietnam, Afghanistan and Iraq suggests otherwise. Moreover, the Army's new doctrine confirms the triumph of real-world experience over wishful thinking. Thus what the Army lacks are forces designed to surge in the event of a major contingency at the lower end of the conflict spectrum, as well as forces designed to prevent such a contingency from arising in the first place.

The Army needs to field two surge forces, one for conventional operations as described above, the other for irregular warfare. Should either form of conflict prove protracted, the other wing of the force can, over the course of the initial twelve- to fifteen-month surge, undergo training and the appropriate force structure modifications to enable it to "swing in" behind the surge force to sustain operations.

What might we call this Army? It might be termed the "Dual-Surge" Force, or described as a "High-Low" Force. It could also lay claim to be *a truly capable "Full-Spectrum" Force*.

The Army needs to field two surge forces, one for conventional operations, the other for irregular warfare. Should either form of conflict prove protracted, the other wing of the force can undergo training and the appropriate force structure modifications to enable it to "swing in" behind the surge force to sustain operations.

What changes in the Army's force structure and program would be necessary to field the "Two-Surge" Force? The following recommendations are provided for consideration. While these recommendations might be further refined through more detailed analysis than is practical here, the author is confident that they represent a significant improvement over the Army's current approach. It is assumed that force structure modifications will be completed at the same time as the Army's planned completion date for the Modular Force, in FY 2013. At that time, it is also assumed that Army requirements for Afghanistan and Iraq will be significantly reduced from current levels, perhaps by half.

FORCE STRUCTURE

The Army must rebalance its force structure to enable persistent support for Phase 0 stability operations, to include building partner capacity where needed. This requires converting fifteen Army IBCTs to the SC BCT configuration described earlier in this report, as well as fifteen ARNG IBCTs to an SC BCT configuration. Given a 3:1 rotation rate for the Active Component, and a 6:1 rate for the Reserve Component, the force generation process should be capable of fielding seven and a half SC BCTs on a sustained basis. In Phase 0 operations, these BCTs would typically operate in small force packages conducting a range of stability operations missions, to include

TABLE 2. **THE FULL-SPECTRUM FORCE AND DUAL-SURGE FORCE**

AC/RC	Modular "Full-Spectrum" Force	Modular "Dual-Surge" Force
HBCTs	19/7	13/9
SBCTs	6/1	6/1
IBCTs	23/20	8/0
SC BCTs	0/0	15/15
Total	48/28	42/25

Source: Department of the Army, CSBA

building partner capacity. In the event of a major stability operations contingency, the Army would have a force of thirty brigades to draw upon for surge operations for up to fifteen months, to enable the Army's other wing to reorient itself to sustain the initial surge and to build up partner capacity within the threatened state and among allies and partners, as necessary.

Should the Army be confronted with an irregular force capable of posing a hybrid warfare threat, HBCT elements (and, perhaps eventually, FCS BCTs) might be deployed as part of the initial surge force. The stability operations surge force could also be supported by the four Army airborne brigades of the 82nd Airborne Division, as well as the four brigades of the 101st Airborne Division (Air Assault) and the six middle-weight Stryker brigades, for a total of fourteen BCTs. To this might be added the ARNG's single Stryker BCT.

The Army's heavy force oriented primarily on conventional operations would comprise twelve HBCTs, perhaps eventually migrating to twelve FCS BCTS, and an armored cavalry regiment, along with nine National Guard HBCTs (an increase of two HBCTs over the current force). This would provide the Army with a heavy surge force of up to twenty-two HBCTs, with six AC SBCTs and one ARNG SBCT available if needed, along with the four brigades of the 101st, for a total of thirty-three heavy or "middle-weight" brigades, far in excess of what is likely to be required for the MCO portion of regime change operations against a nuclear rogue state like Iran, assuming its A2/AD defenses can be reduced to a level that would permit the introduction of large US ground combat forces.

The above recommendations result in an overall force structure of forty-two BCTs in the Active Component, and twenty-five BCTs in the Reserve Component, for a total of sixty-seven BCTs. This represents a reduction in the Army's Modular Force goal of forty-eight AC BCTs and twenty-eight RC BCTs. This reduction in the level of BCTs (which would be matched by a corresponding reduction in support brigades) offers several important benefits.

First, by reducing the need to generate large numbers of new officers and NCOs, it stems the highly corrosive decline in the quality of the Army's leadership. At the same time, it enables the Army to restock the "institutional Army"—the Services schools, staffs, etc.—that enable officers and NCOs to receive the training and education needed to enable a surge of trainers and advisors when needed, as opposed to pulling from deployed brigades to fill the need. Along these lines, doctrine for advisors and trainers needs to be developed, along with a school to ensure they receive the proper training.

Second, a reduction of six AC BCTs and two RC BCTs along with programmed new support brigades also mitigates the erosion in the quality of the officer and NCO corps stemming from the decision to increase dramatically the size of the US military's Special Operations Forces. This has created a whipsaw effect within the Army, as it sees the quality of its recruits declining while the best of those who remain in the Service are being recruited by the Special Forces.

In the event of a major stability operations contingency, the Army would have a force of thirty brigades to draw upon for surge operations for up to fifteen months, to enable the Army's other wing to reorient itself to sustain the initial surge and to build up partner capacity within the threatened state and among allies and partners.

Third, a smaller force structure also reduces the pressure on manpower that has led the Army to lower its recruiting standards. Finally, it also has a beneficial effect on the Army's budget: fewer soldiers reduces strain on the personnel accounts, while fewer brigades takes some of the stress of the procurement accounts, since there are not as many of them requiring updated equipment.

The revised force structure is also more evenly weighted between the Active and Reserve Components. Now roughly a third of the RC force is heavy, while slightly less than a third of the AC is comprised of heavy brigades. This reflects the Active Army's ability to provide forces for stability operations on a more frequent rotation basis than the RC, and the need to hedge against the possibility of high-end warfare. Finally, it better positions the Army to free up officers and NCOs for advisor and training duties to support the defense strategy's focus on building partner capacity.

To be sure, there are risks involved in reducing the Army's projected force structure. However, this study finds that the risks of continuing down a path that leads to declining officer and NCO quality, a lack of capacity to support the defense strategy's focus on building up the capabilities of allies and partners, and the flawed assumption that a latter-day general purpose Army that remains overly weighted toward conventional warfare can quickly and effectively shift to conduct irregular warfare operations far outweigh the risks inherent in this report's force structure recommendations.

SELECTED PROGRAMS

The Future Combat System

The Army's centerpiece modernization program, the Future Combat Systems, is really a cluster of fourteen systems of various types. These systems will rely heavily on being linked as part of an overarching battle network that ties them together with individual soldiers and the US military's joint battle network. While revolutionary in its concept, given the many technical challenges confronting the program, the FCS program may not be executable at an acceptable cost. Moreover, it may not be possible to create the battle network, as currently envisioned by the Army, or to create it within the timeframe projected. If this proves to be the case, the Army needs to have a plan to harvest as many FCS capabilities as possible while identifying an alternative modernization path. Thus far the Army is moving FCS components into the current force as they become available. However, to date these capabilities are relatively modest compared to the program's stated goals and the level of resources being invested. A thorough program review, along the lines recommended by the GAO noted above, by the incoming administration is warranted before the Army commits to seeing the program through in its current form.

What might an alternative modernization path look like? In addition to harvesting as much of the FCS program as possible, such as the unmanned aerial systems,

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unattended ground sensors, and ground robotics, the Army would need to experiment with various options for building a battle network that is feasible, affordable, and that enables a major boost in military effectiveness across the entire conflict spectrum. Since the effectiveness of the combat systems associated with the network is heavily dependent upon the network, final decisions on the major combat systems' designs should be held off until the network's form and capability are well understood. In the interim, the Army needs to continue recapitalizing the existing force, while engaging in selective modernization only when necessary.

A Stability Operations Stockpile

The era of persistent irregular warfare presents the Army with the challenge of training *and equipping* indigenous and partner forces engaged in stability operations on a major scale. The Army must also be prepared to replenish damaged or destroyed equipment of Army units engaged in stability operations. Given the importance of preventive action and exploiting the opportunities presented by the "golden hour," the equipment to support a sustained surge in stability operations must be available to the combatant commands on short notice, and not cobbled together on the fly. Thus equipment stocks to outfit host-nation forces being trained should be stockpiled, similar to the POMCUS equipment that was positioned to support US forces during the Cold War. There must also be a warm production base that is capable of surging equipment to replace those items lost during operations.

Air and Missile Defense

The Army also needs to move energetically in developing air and missile defense capabilities to address the nascent G-RAMM threat before it matures and the Service finds itself engaged in another round of "reactive" transformation, as it has experienced in Afghanistan and Iraq. The challenge here is not only to develop effective capabilities, but capabilities that are *cost-effective*. At present, given the high cost of kinetic interceptors, the most promising developments in this area are in the field of solid-state lasers (SSLs). A substantially greater effort should be devoted to translating this rapidly-progressing potential into fielded military capability.
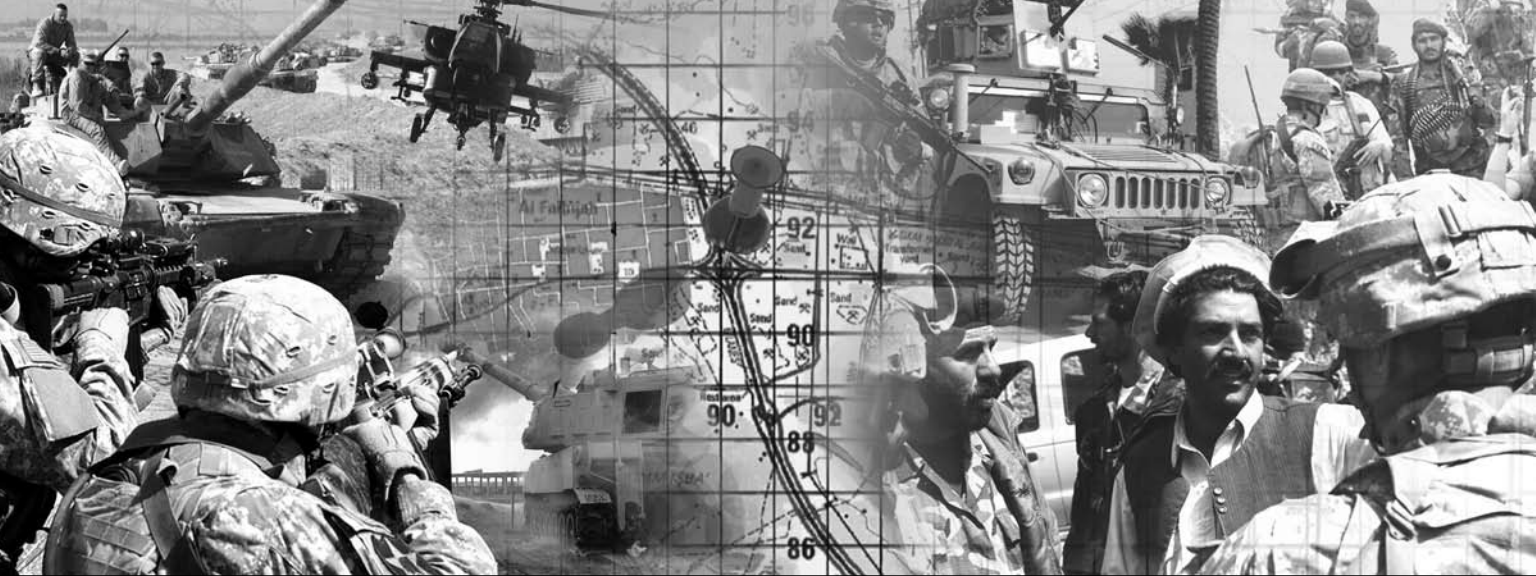
CONCLUSION

FINAL THOUGHTS

The Army's leadership has rightly concluded that it needs a force capable of performing across the full spectrum of conflict at a high level of effectiveness. But in its attempts to make the entire Army as effective across a range of conflict types, it risks becoming marginally competent in many tasks, and highly effective at none. In attempting to increase the size of the Army to field forces large enough to deal with a range of contingencies, the Service risks being unable to create the needed scale by building up the capabilities of America's allies and partners, a key part of the defense strategy. It also risks a catastrophic leadership failure of a kind not seen since the late stages of the Vietnam War, a failure that took the Army over a decade to repair.

Squaring this difficult circle will require the Army to put more faith in the joint force's ability to dominate conflict at the higher end of the conflict spectrum, and to resist the temptation to return to a general-purpose force posture by another name. This will allow the Army to truly orient itself on creating a full-spectrum capable force by fielding forces focused on irregular warfare on a scale and level of effectiveness comparable to its world-class conventional forces.

GLOSSARY

A2/AD	anti-access/area-denial
AC	Active Component
ARNG	Army National Guard
ARV-A-L	Armed Robotic Vehicle-Assault-Light
BCT	Brigade Combat Team
CBRN	Chemical, Biological, Radiological and Nuclear
C2V	Command and Control Vehicle
C/D METL	core/directed mission-essential task list
FCS	Future Combat System
FRMV	recovery and maintenance vehicle
G-RAMM	RAMM with guided capability
GSTAMID	Ground Standoff Mine Detection System
HBCT	Heavy Brigade Combat Team
IBCT	Infantry Brigade Combat Team
ICV	Infantry Carrier Vehicle
IED	improvised explosive device
JTRS	Joint Tactical Radio System
MAV	Micro Aerial Vehicle
MCO	major combat operation
MCS	Mounted Combat System
MGV	manned ground vehicle
MLRS	Multiple Launch Rocket System
MRC	major regional conflict
MTW	major theater war
MULE-T	Multi-Functional Utility Logistics and Equipment (vehicle)
MULE-CM	Multi-Functional Utility Logistics and Equipment (vehicle)-Counter Mine
MV-T/-E	Medical Vehicle Treatment/Evaluation
NLOS-C	Non-Line of Sight Cannon
NLOS-LS	Non-Line of Sight Launch System

NLOS-M	Non-Line of Sight Mortar
NTC	National Training Center
Pac-3	Patriot 3 (missile system)
RAMM	rockets, artillery, mortars and missiles
RC	Reserve Component
RSV	Reconnaissance and Surveillance Vehicle
SBCT	Stryker Brigade Combat Team
SSTR	security, stability, transition, and reconstruction
SSC	small-scale contingency
Stryker	Army's name for the family of wheeled armored vehicles which will constitute most of the brigade's combat and combat support vehicles
SUGV	small unmanned ground vehicle
THAAD	Terminal High-Altitude Area Defense (missile system)
UAV	unmanned aerial vehicle
UGV	unmanned ground vehicle
UGS	unattended ground sensor

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